

CBSE Study Material for Students

Employability

Class XII

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Skill Education Unit

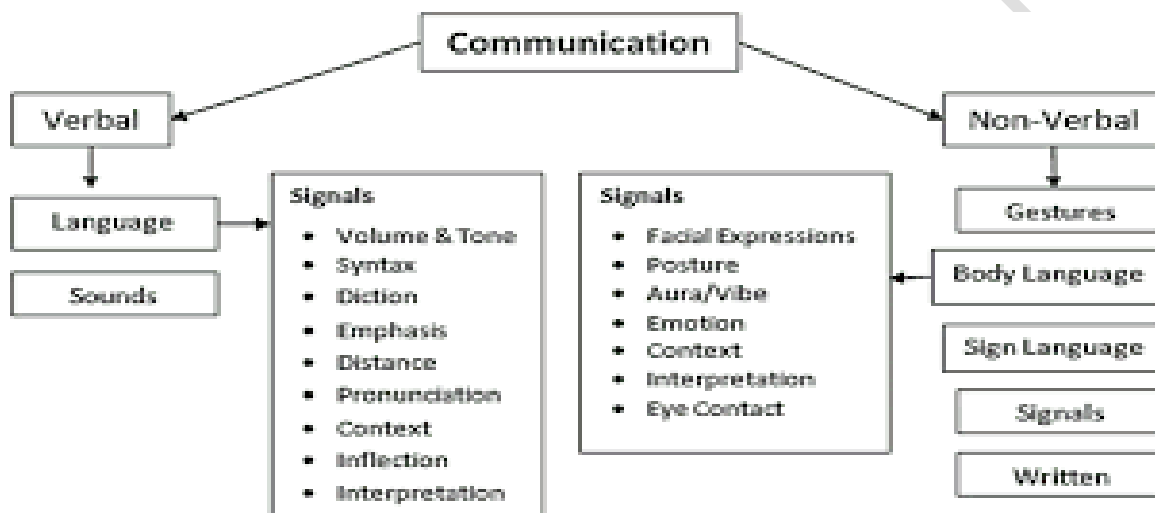
Communication skills

What is communication?

Communication is the act of conveying meanings from one entity or group to another through the use of mutually understood signs, symbols, and semiotic rules.

*The following figure represents types of communication

(Fig 1)



Learning objectives of Effective communication

1. Development of Interpersonal Skills
2. To express effectively & with maximum efficiency

What is Writing?

Writing is a form of communication that allows students to put their feelings and ideas on paper, to organize their knowledge and beliefs into convincing arguments, and to convey meaning through well-constructed text. In its most advanced form, written expression can be as vivid as a work of art.

Grade 12

1. Sentences - A sentence is a group of words giving a complete thought. A sentence must contain a subject and a verb.

The main focus here is to improve basic sentence composition skills. One can review the types of sentences and the functions of their component parts listed below.

Simple, compound, and complex sentences

a) Simple sentence-

A simple sentence is one independent clause that has a subject and a verb and expresses a complete thought. Notice that there are some important requirements for a simple sentence:

- Must have a subject and a verb.
- Must express a complete thought.
- Must only have one clause.

Examples

- I am out of paper for the printer.
- Will you help me with the math homework?

b) Compound Sentence

A compound sentence allows us to share a lot of information by combining two or more related thoughts into one sentence. It combines two independent clauses by using a conjunction like “and.” This creates sentences that are more useful than writing many sentences with separate thoughts.

Example of Compound Sentences

We use compound sentences all of the time. Here are some examples, the independent clause is green, the second is purple, and the conjunctions are orange:

1. I **drove to the office**, **and** **then I walked to the cabin**.

c) Complex sentence –

A complex sentence is a sentence that combines one independent clause with at least one dependent clause.

Example

- Although Rohan had some doubts, he found the courses very useful.

The above example is a complex sentence: it has a dependent clause (a subject 'Rohan' and a verb 'had'), followed by an independent clause (subject 'he' and a verb 'found') and forms a complete thought.

- Computers have come a long way since they first came on the market.
This example begins with an independent clause (subject 'computers' and verb 'have come') that forms a complete thought, followed by a dependent clause (subject 'they' and a verb 'came').

<https://study.com/academy/lesson/types-of-sentences-simple-compound-complex.html#lesson>

The link mentioned above will further will help the students to strengthen their concept on the above mentioned topics

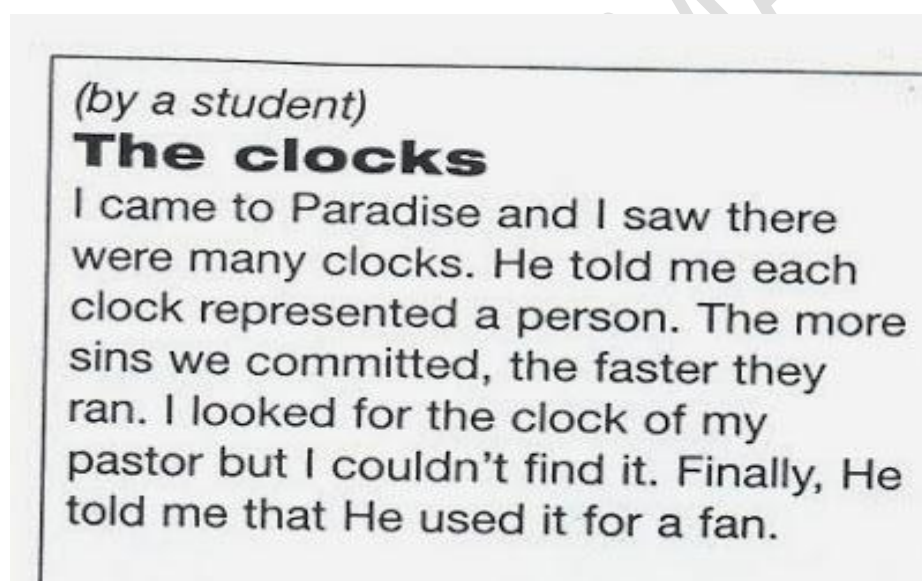
Writing skills

Activity- Mini sagas

Sometimes when we ask students to write a composition they spend very little time at the important editing stage. In this lesson students will do a couple of 'short writing' activities with the focus on editing and accuracy.

A mini saga is a piece of writing with exactly fifty words. It has to tell a story, have a beginning, a middle and an ending. Mini sagas were 'invented' by the Science fiction writer Brian Aldiss, who thought it would be fun and challenging to tell/write a story in very few words.

Students work alone to write a mini saga. First they should spend a few minutes thinking of what they are going to write about. The teacher will discuss few ideas on the board to help: A description of a favourite object, place, person; a joke, something funny or scary that happened with the student; a synopsis of a film they have watched or a book they have read; a letter to an old school teacher, friend or relative. Students write their first draft, then spend time editing, cutting out or adding words until the text has exactly 50 words



The above figure is an example of a **Mini saga**

It will help the students to learn how to **edit** their writing and to help students understand that 'quality' is more important than 'quantity' when it comes to writing and make them understand that 'quality' is more important than 'quantity' when it comes to writing

A worksheet can be taken up in the class to test the concept clarity.

Worksheet

Identify the following sentences as simple, compound or complex.

1. The production of a single pound of honey requires nectar from approximately two million flowers.
2. The vibrant trumpet-shaped blooms of the trumpet vine make it ideal for attracting hummingbirds.
3. We can watch the boxing match, which will be broadcast at nine o'clock, or we can view the documentary about the greatest innovations of the twenty-first century.
4. Russia has a variety of natural resources, including oil, natural gas, timber, iron ore, copper and lead.
5. The right hemisphere of the human brain typically controls muscle movement on the left side of the body.
6. Aaron has an unconventional swing, but he manages to drive the ball farther than some professional golfers.
7. During last night's thunderstorm, a flurry of tiny hailstones danced across the roof of our house.
8. An avid reader, Thomas attends weekly book club meetings, and he finishes several novels every month.

2. Phrases - Phrases are a group of words that work together to communicate an element of speech.

The following link further explains use of phrases in communicating better and with much ease.

Types of phrases

1. Noun Phrase

A noun phrase is any noun or pronoun along with its modifiers:

Example –

- The school children
- Yesterday's newspaper

2. Verb Phrase

A verb phrase is any number of verbs working together:

Example

- Had been sleeping
- Will contact
- May have written

3. Prepositional Phrase

A prepositional phrase always starts with a preposition and ends with a noun or pronoun (and its modifiers) that is called the object of the preposition:

Example

- Through the wheat field
- Preposition: through
- Object of the preposition: the wheat field

Some more examples of prepositional phrases:

- During the year
- Despite complaints

4. Verbal Phrases

There are three types of verbal phrases: participial phrases, gerund phrases, and infinitive phrases. Each is explained below.

a) Participial Phrase

Participial phrases start with either a present or past participle. Here are some examples of each.

Phrase with present participles:

- Watching silently

Phrases with past participles:

- Driven to succeed

b) Gerund Phrase

A gerund phrase is a present participle (and its modifiers) that acts like a noun. It can take on a variety of jobs in the sentence. Here are a couple of examples:

- Practicing helped a lot. (subject)
- I love reading. (direct object)

c) Infinitive Phrase

An infinitive phrase is the infinitive and its modifiers:

Example

- To sing
- To walk all that way

d) **Appositive Phrase**

An appositive phrase is a phrase that renames an earlier noun or pronoun

My best friend, **Nick Palacio**, loves scuba diving.

We watched Sirius, **the brightest star in the sky**

e) **Absolute Phrase**

Absolute phrases are the trickiest to identify. These phrases are not closely connected to the rest of the sentence; they don't describe a specific word, but modify the whole sentence. They add extra information and are usually separated by commas (or dashes).

Example

The semester finished, Karen sold all her textbooks.

Absolute phrase: The semester finished

A worksheet can be taken up in the class to further built up the concept

For each sentence, Identify the phrase and state its kind.

1. He was a man of great wealth.
2. The principal was an old man of friendly disposition.
3. The workers belonged to a tribe dwelling in the hills.
4. There I met a boy with red hair.
5. Only a man with plenty of money can buy a car of such beauty and power.
6. He was a young man of great promise. 7. He wore a turban made of gold.
8. He ran with great speed.
9. You can buy it in all places.
10. He replied in a very rude manner.
11. How does he live without any worries?



Writing skills - Branding and Brand names

It explores the theme of branding and brand names. Students will have an opportunity to read and discuss the context of a text and create and brand their own imaginary product.



It involves some discussion, reading and writing. It explores the area of 'brands' and the associations we have with particular brand names. Students will rank their favourite brand names and discuss what they like/dislike about them. They will read and discuss the context of a text about brand naming and complete related vocabulary building exercises. Lastly students will create and brand their own imaginary product which they will present to the rest of the class.

Example

Task 1: Reading

The name is the most important element of a successful brand. Packaging changes, advertising changes, products even change but brand names never change. Where do great brand names come from? For example, McDonald's is a family name, Adidas was created from the inventor's name Adi Dassler, Volvo means "to roll" in Latin.

Task 2: Discussion

Discuss the following questions in pairs:

1. Why are brand names important?
2. Name three different sources of brand names.
3. Do you think brands are important? Why?
4. Do you have a favourite brand? What is it and why do you like it?

Task 3: Mini write up

In pairs students will invent a new product and give it a name.

They will think about the following points:

- What is special or unusual about your product?
- Why would people want to use or buy it?
- How does the name relate to the product?

Once they have chosen a name for their product, they will prepare a short write to be given in front of the class.

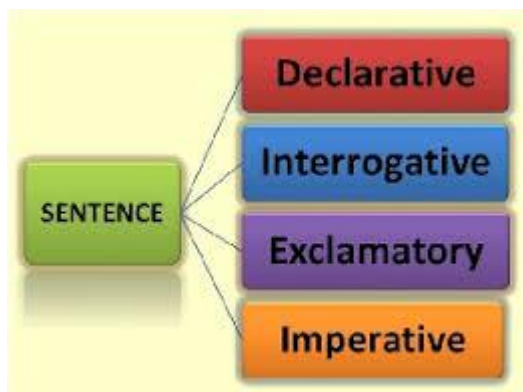
Here are some useful **phrases** that may help them with their presentation:

- **We would like to introduce our new product...**
- **We chose the name... because...**
- **You can use it to...**
 - Some of the idea for a new product

A digital watch with a built in mobile phone and mini-computer

A new digital homework personal organiser

3. Kinds of sentences –

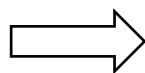


In writing and speaking, there are four basic kinds of sentences:

- Declarative sentences
 - Interrogative sentences
 - Imperative sentences
 - Exclamatory sentences
- a) A **declarative sentence** is the most basic type of sentence. Its purpose is to relay information, and it is punctuated with a period. For example:

I walked home.

- b) **Interrogative sentences** interrogate, or ask questions. These are direct questions, and they are punctuated with a question mark. For example:
- Why haven't you completed your work?
- c) **Exclamatory sentences** are like declarative sentences in that they make a statement instead of asking a question, but their main purpose is to express strong emotion. They are easily recognized because they end in an exclamation point instead of a period: For example
- Wow, he just got an appraisal!
- d) **Imperative sentences** do not simply state a fact but rather tell someone to do something. These can be in the form of friendly advice, basic instructions or more forceful commands. For example:
- Turn left at the bridge.



Using Different Sentence Types to Add Variety to Writing

Writing skill- Email writing

(Activity)

Students will learn the rules of writing emails and will compose and send an email. The main focus of this lesson will be on writing semi-formal emails.

Example

Study Material

- The students will send a email to a language school offering part time language courses .

Some hints

- a) Do you do a part time course for school students, which helps them with their essay writing skills
- b) How many hours a week are the courses?
- c) What after-school activities are there? Will they help me to improve my communications skills?
- d) What is the actual cost of the course? Do you offer any scholarship?
*I'm hoping to join the course soon, so if you can get back to me as soon as possible, it would be great. Thanks for your help.

Format of a Semi formal E- mail

- ➔ Title (Dear Mr Banks, Dear Mrs Johns.....)
- ➔ Explanation - Reason for writing
- ➔ Paragraph 1 - First point with detail
- ➔ Paragraph 2 - Second point with detail
- ➔ Paragraph 3 - Third point with detail
- ➔ Closing sentence - (I hope this is acceptable.... e
- ➔ Signing off - (Yours Sincerely.... etc)
- ➔ Name (Made up - or your own)

This will help them to study the difference between writing a Formal, informal and semi Formal email writing using different kind of sentences.

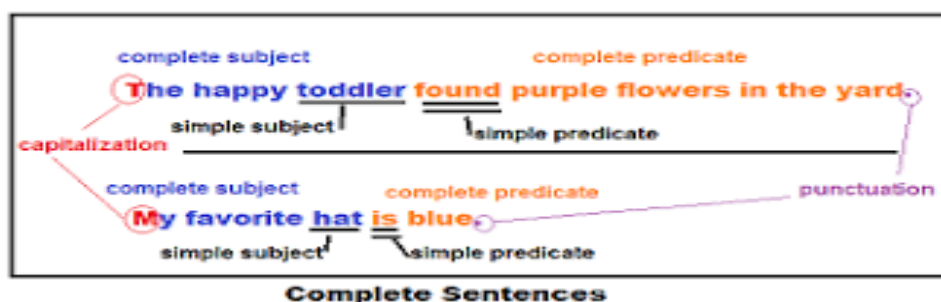
6. Parts of a sentence-

Every sentence can be broken into two parts

- a) Complete Subject
- b) Complete Predicate

The complete subject consists of simple subject (The noun or the pronoun is the subject is about) and its modifiers

- The complete predicate is made of up of verb and its modifiers.



The subject of a complete sentence is who or what the sentence is about, and the predicate tells about that subject.

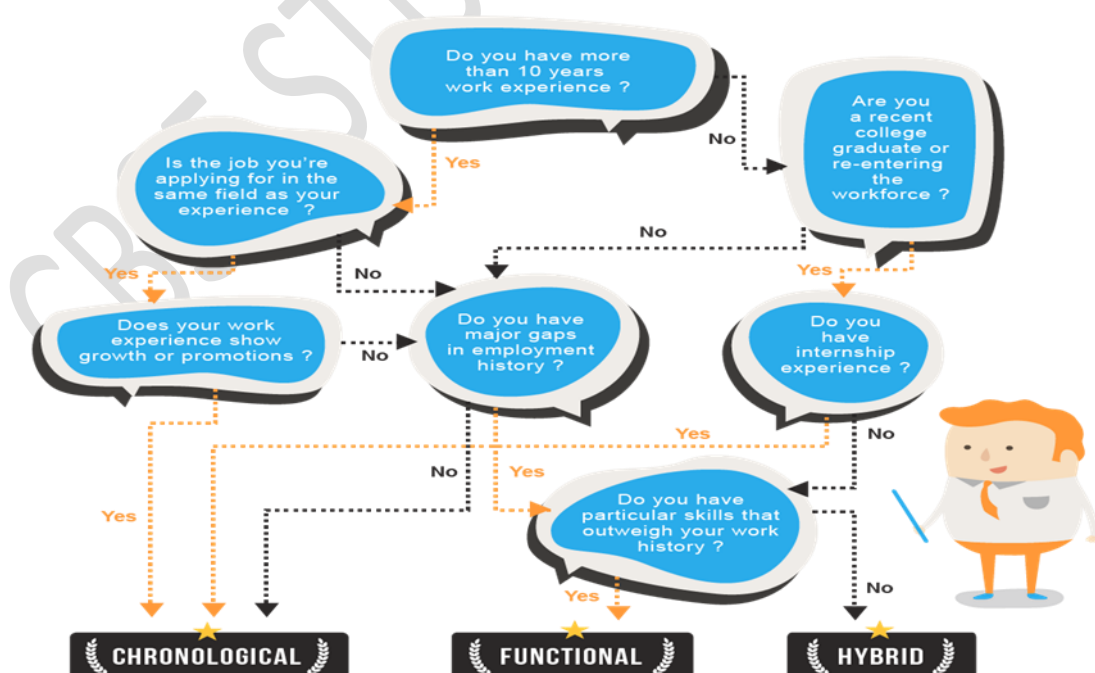
Yesterday after lunch the students were complaining about the short recess.

The students" are the subject (red) of the sentence. The predicate always includes the verb, and tells something about the subject; in this example, the students (purple)"were complaining about the short recess."

After explaining the concept of parts of sentence, an activity will be taken up to strengthen the topic.

Writing skills - Creating a professional portfolio

Finding employment can be challenging for anyone, but the job market can be especially tough for recent college graduates/ Undergraduates, people re-entering the workforce after time away, or someone who has been in a position for a long time. Competition is stiff; the market is filled with other strong job candidates, too. So how can students increase their chances for getting a great job in the field they love? For almost everyone, it starts with a resume (The following Flowchart will help the students to create a professional resume)



(Sample of Resume writing format)

Your Name
Street Address • City, State or Province, Zip
Phone Number • email_address@email.com

Objective OR Summary
A resume Objective or Summary can help describe the value you bring to a prospective employer and entice a hiring manager to read your resume. Get help:
www.squawkfox.com/2008/12/18/anatomy-of-a-killer-resume

Professional Experience

Job Title Company and Location	Years
<ul style="list-style-type: none">Action words + Keywords + Skills + KnowledgeBe specific by using numbers and percentages.	

Relevant Skills
Skill Group or Title: List skills here.

Education
Example Education:
B.Sc., Computer Science (High Honors), University of British Columbia, 2002.

for freshers) Th The following link will further help the students to understand how to create professional resume better

(<https://youtu.be/VjdlraonW2s>)

5. **Parts of speech**- A category to which a word is assigned in accordance with its syntactic functions. In English the main parts of speech are noun, pronoun, adjective, determiner, verb, adverb, preposition, conjunction, and interjection.

The following figure represents **eight** parts of speech

The 8 Parts of Speech

Verb	An action: like run, jump, or read; or a state of being: like is or was.
Noun	A thing, or idea: rock, dog, John, democracy, birthday, gravity
Adverb	Tells how an action occurred: quickly, slowly, carefully
Adjective	Tells about a noun: big, red, Fred's
Pronoun	Used to replace a noun: it, I, them
Preposition	Describes relationship: on, over, for, beside
Conjunction	Joins words or phrases: and, or, because
Interjection	A word of surprise: Wow! Oh my!

www.HGPublishing.com/Grammar

1. **NOUN**- A noun is the name of a person, place, thing, or idea.

London, Flower, Happiness

2. **PRONOUN**- A pronoun is a word used in place of a noun.

She, we, they, it

3. **VERB**- A verb expresses action or being.

Jump, is, become

4. **ADJECTIVE** -An adjective modifies or describes a noun or pronoun.

Pretty, old

5. **ADVERB** -An adverb modifies or describes a verb, an adjective, or another adverb.

Gently, extremely

6. **PREPOSITION** -a preposition is a word placed before a noun or pronoun to form a phrase modifying another word in the sentence.

By, with,

7. **CONJUNCTION** -A conjunction joins words, phrases, or clauses. T

The young girl brought me a very long letter from the teacher, **and** then she quickly disappeared.

8. **INTERJECTION** - An interjection is a word used to express emotion.

Oh! Wow!

The following link will help to reinforce the concept

(<https://www.youtube.com/watch?v=v9fCKTwytJA>)

(Writing skill)

Activity

Adopt a word

Students will be given templates with a heading

Word	Meaning	Part of speech	Example of usage

- The students choose a word that they would like to adopt and do some research on it using the template above.
- Each student then gives a short presentation on his or her adopted word until all the class has had a chance.
- The words are then stuck to a large paper chart on the wall

In between we quizzes can be organised about the new words. The students greatly enjoy contributing words, researching and presenting.

This activity will help the students to streamline their thoughts and build up their vocabulary.

6. Article writing

Article writing is the process of creating a non-fiction text about current or recent news, items of general interest or specific topics.

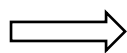
The following figure represents the format of Article writing

* Figure 5

Format of Article Writing

<p style="text-align: center;"><u>Topic of Article</u> (By: XYZ)</p> <p>(1.) Introduction of the topic (Meaning + Present Status)</p> <p>(2.) Causes of the topic (If it is a problem)</p> <p>(3.) Statistics of the topic (Problem) (If Known)</p> <p>(4.) Advantages/Disadvantages of the topic (Problem)</p> <p>(5.) Conclusion with warning/message/advice/Steps Required</p>

The following link will help to build up the concept



<https://youtu.be/q2197KT1iNE?list=RDQMaJwsUDCsYv4>

Example

You are Renu/Ronit. Write an article in 100-120 words for your school magazine on journalism as a career.

- Hints – Journalism suitable for those who are good at language'
- Ones who desire to present truth to the public

Activity

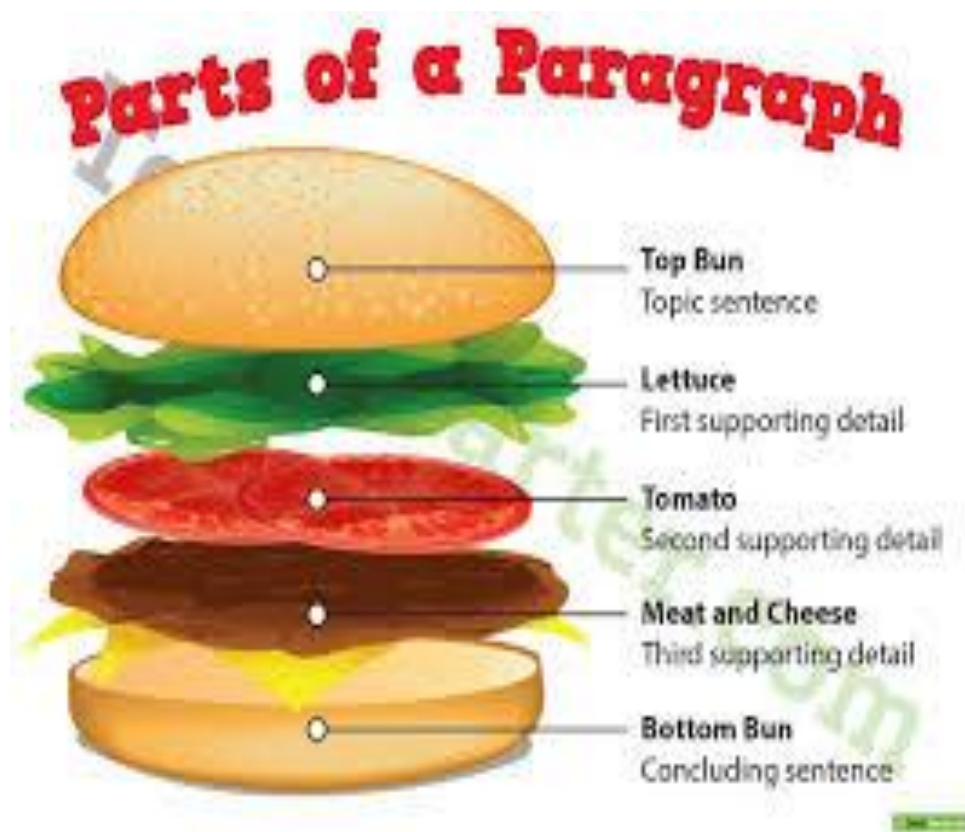
Media diary

Students write about the different 'media' that they have been watching or reading. This could include TV programmes, films at the cinema or on DVD, websites that they have been looking at, magazines, books, etc. This will help the students to have clarity about present day situations and organise their thoughts in a more constructive way.

5. Construction of the Paragraph

What is a paragraph?

A paragraph is a series of sentences that are organized and coherent, and are all related to a single topic.



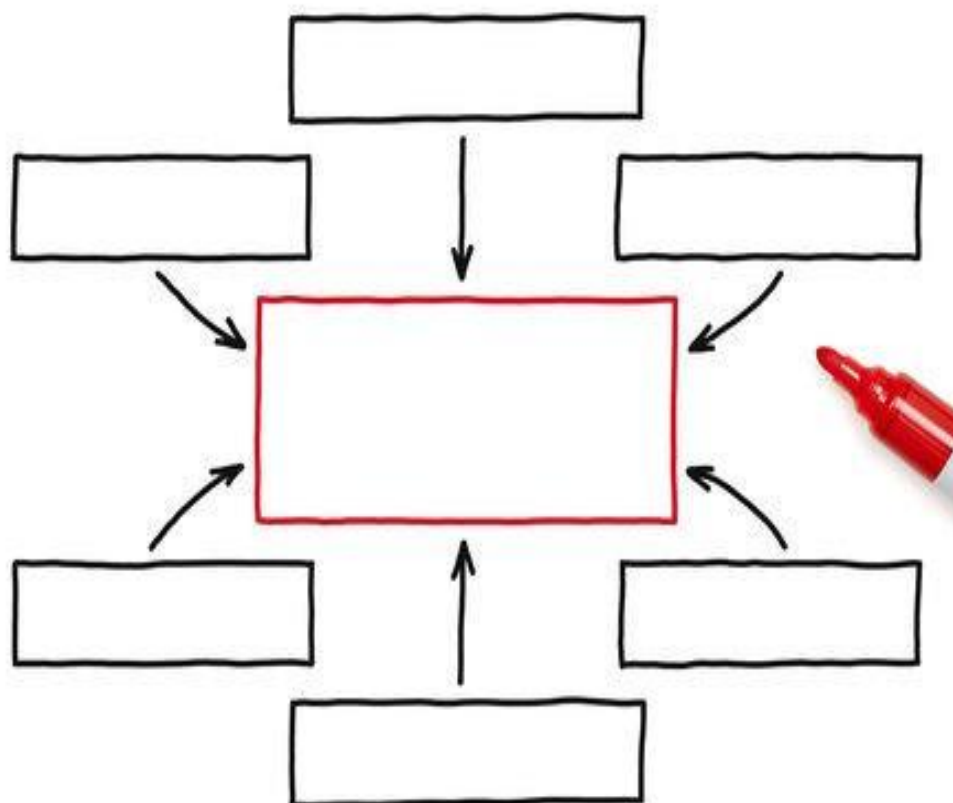
(Writing skill)

Activity – Argument essay

This activity will help students organise their argument essays and so improve their writing. A possible cause of the student's poor performance is that students do not know how to organise argument essays or paragraphs

Following points can help them(students) to write/pen down their thoughts in a constructive manner.

- Explain the overall organisation of an argument essay to students.
- Explain paragraph organisation.
- Give students a list of connectives which they could use in their essays. Make sure that they understand the relationships that are implied by these connectives.
- Give students a model argument essay. Once they have read it, ask them to draw a spider-diagram of the essay in the following way:



- Firstly, students will identify the thesis. They will write it in a circle in the middle of a blank piece of paper.
- Next, identify the claims or statements that are made to support this thesis. Students will write these around the thesis.
- Then they will identify and list the details and examples which are given to support each claim/statement.
- Finally, students will write relevant connectors between the thesis and the claims/statements and between the claims/statements themselves.

This activity aims to help student to recognise their own problems with paragraph construction and to identify errors, which improves their own re-drafting skills.

Summary:

A classroom environment relies heavily on the quality of communication taking place within it. As an instructor, taking steps towards improving the communication skills of students will contribute positively towards your classroom climate. Students with effective communication skills will be more likely to contribute to class discussions, will be more productive members in group projects, and will ultimately gain more from their experience in the class. Learning and practicing writing skills help students to handle professional and social tensions.

References

Study Material

: Google

: You tube

: British council Library

References

: Google

: You tube

: British council Library

Communication - Describe the steps to active listening skills

Worksheet 1

Warm Up

A Listening Cues Game

In pairs take on the following roles:

Role Play: Learning about Active Listening

Phase 1

Student 1 Read a news article to your partner, Student 2 .

Read with proper expression and at a normal speed.

Student 2 Do not show your card to your partner!

You are a very poor listener. Display poor listening behavior .You are :

- fidgeting
- looking around
- interrupting to ask questions
- making inappropriate facial expressions.

Phase 2

Student 2

Explain /read the article that was just read to him, back to Student 1

Student 1

You should display positive listening skills. You are :

- making eye contact
- sitting still
- making appropriate facial cues

Communication - Describe the steps to active listening skills

- taking notes
- waiting until the end to ask questions.

Phase 3 All groups review the article together.

- identify things Student 2 missed because he wasn't listening closely
- demonstrate how important it is to use proper listening behaviors to understand the message being relayed.

B Listening With Distractions Game

Phase 1

- In groups of about 6 or more students play the following game:
- One student will play the role of teacher.
- Tell them you will read out a story (any story will do).
- Give one set of people on your left side a task.
- For example, ask them to count how many times you say the word "and."
- Ask others to count the number of times you smile.
- Give the other set of students on your right side no task at all, except to listen.

Phase 2

- Read the story.
- When you have finished, ask each group member to write down answers to three questions about your story.
- Find out which group answered better.
- You will find that the people who were distracted by a task may not answer the questions as easily as those who were listening without tasks.

Phase 3

All groups :Discuss how difficult it was for people to pay attention when they were not focused on the message itself.

Communication - Describe the steps to active listening skills

C WARM-UP: TELEPHONE

Introduction :Stand in a circle. Explain that you will be playing the game of Telephone. Ask if any student is familiar with the game and would like to explain how to play.

1Start by whispering the following sentence into a student's ear: "I want to know what it feels like to listen and what it feels like to be heard."

2This first student will then whisper what they think they heard into the next student's ear. Students will repeat this process until the last person is reached. The last student will then say the word or phrase they heard out loud for the whole class to hear. More likely than not, the last student will have heard something totally different from the original message.

3a)Next sit in a circle and discuss the following:

- What happened to the original message?
- Was it easy or difficult to hear the message? Why do you think it might have been difficult?

b) Do you think the following reasons are correct?

- It was hard to hear because the person was whispering."
- "We weren't making eye contact."
- "Students were talking or laughing."
- "It's hard to understand an isolated word or phrase without any context; i.e., without context, words and phrases can sound like they come from out of the blue."

Communication - Describe the steps to active listening skills

Worksheet 2

A Review the warm ups you did in Worksheet 1.Keeping the activities in mind as well as other factors discuss the following with your partner:

1 What is listening ?

2 How is it different from hearing ?

- a) Examine the sentences below and fill in the blanks with the correct word. Discuss what your choice of word tells you about the differences between hearing and listening.
- b) In pairs, make a table listing the differences between listening and hearing.
- c) Check the information given in Figures 1a and 1b.Add the new information to your table

(i)I can't(hear/listen) you. Could you speak louder please?

(ii) My grandmother likes to(hear/listen) to the radio.

(iii) Did you(listen/hear) the thunder last night/

(iv) The vet is(hearing /listening)to the dog's heartbeat.

Figure 1a)

Figure 1 b)

Communication - Describe the steps to active listening skills

Hearing vs. Listening

- ▶ Do you think there is a difference between hearing and listening?
- ▶ Hearing is simply the **act of perceiving sound by the ear**. If you are not hearing-impaired, hearing simply happens.
- ▶ Listening, however, is something you **consciously** choose to do. Listening requires **concentration** so that your **brain processes meaning from words and sentences**.
- ▶ Listening leads to learning.

Hearing

- Accidental
- Involuntary
- Effortless

Listening

- Focused
- Voluntary
- Intentional

3 Look at Figure 2. Using the information on how listening and hearing differ fill in the blanks with suitable words.

Figure 2

Communication - Describe the steps to active listening skills

LISTENING VERSUS HEARING	
Hearing is passive	Listening is active
Refers to the act of perceiving a sound through the ear	Refers to the act of making a conscious effort to perceive the sound
Does not require a conscious effort	Requires a conscious effort
Involuntary	Voluntary

Pediaa.com

Comment [A1]: Delete following words
Leave blank for stu to fill in
Column A
Passive
Ear
not
_____voluntary
Column B
Active
sound
Conscious
voluntary

CS 11 Worksheet 3

1Examine Figure 3 .

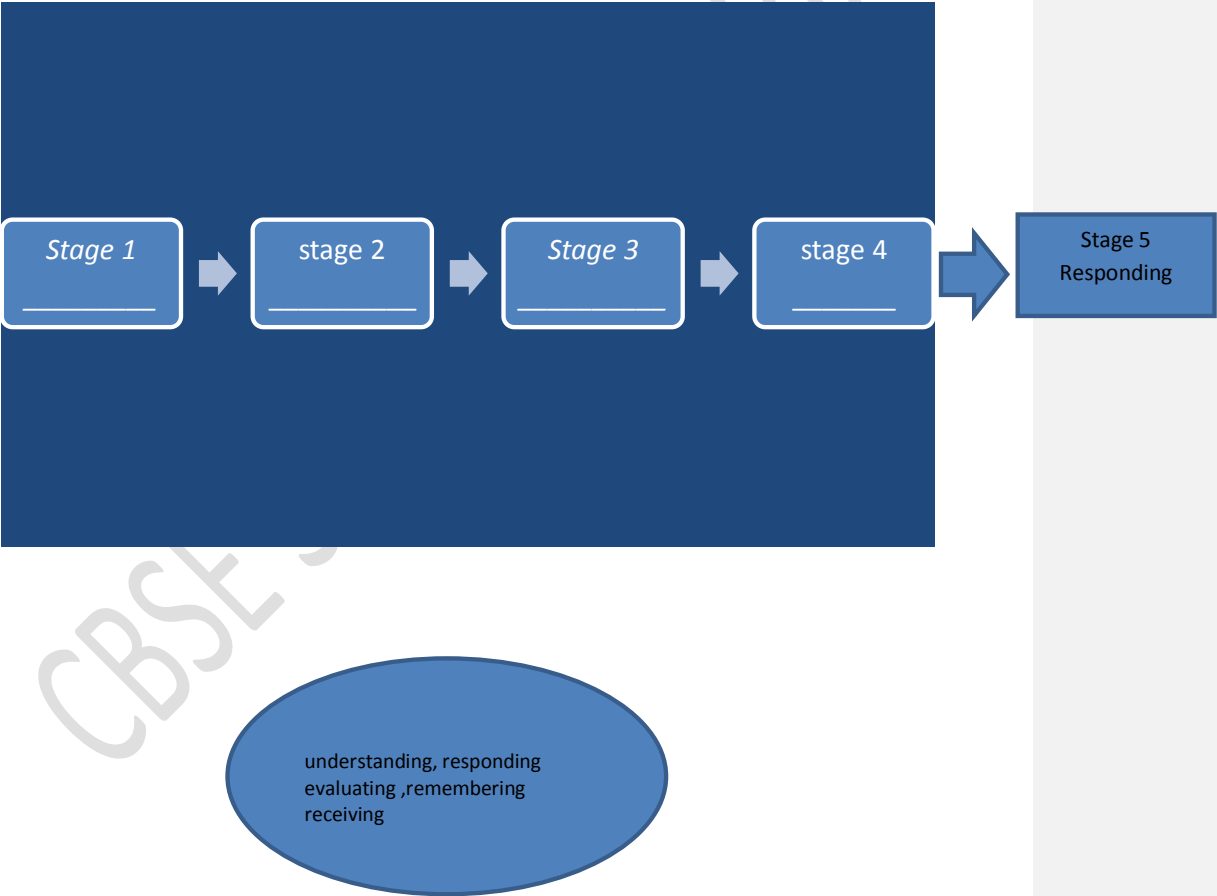
Communication - Describe the steps to active listening skills

Let us now think about the different stages of listening. listening

2 Using the words given in the box below complete the table.

3 Check your answers given at the end.

Figure 3



4 a)Look at Figure 4,column A and B. What are the 5 stages of Listening .Under Column A write the numeral 1-5 and in Column B write the name of each of the stages in the correct order .


Communication - Describe the steps to active listening skills

b) Next, look at column C. It has the description of the 5 stages in jumbled order. Read carefully and match the different stages of listening listed in Column B with its corresponding description given in column C.

Figure 4

Comment [A2]: Pls delete thi!!!

A	B	C
---	---	---

s.n	stages of listening	description of the stage
a) stage ?	<div><div></div><div></div></div>	<ul style="list-style-type: none">attempts to figure out the meaning of the message.
b stage ?	<div><div></div><div></div></div>	<ul style="list-style-type: none">receiver provides verbal or nonverbal feedback about the speaker or message.
c stage ?	<div><div></div><div></div></div>	<ul style="list-style-type: none">listener judges the content of the message or the character of the speaker
d stage ?	<div><div></div><div></div></div>	<ul style="list-style-type: none">this stage is represented by the ear because it is the primary tool involved with this stage of the listening process
e stage ?	<div><div></div><div></div></div>	<ul style="list-style-type: none">receiver either places information into long-term memory or forgets the information presented

Worksheet 4 What is Active Listening ?

A Read the following points which describe active Listening:

Communication - Describe the steps to active listening skills

1Active listening involves attentively seeking to understand a speaker's message, rather than passively hearing the words that a speaker says.

2Active Listeners provide verbal and nonverbal feedback to show their sincere investment in what the speaker is sharing.

3Active listening can help to build trust within a conversation, thereby allowing the speaker to communicate more easily, openly and honestly.

B Role Play :In pairs ,take on the following roles:

1)Teacher

- You have been teaching the student about how to conduct an interview..
- You have seen the video recording of the interview.
- You are now giving feedback and tips to your student on how to become an active listener.
- Enact your role by reading aloud the script below..

2)Student Interviewer

- You are passionate about becoming a television interviewer.
- You have recently taken an interview of an Alumnus who has excelled in Sports .
- The interview has been videotaped.
- You have come to your teacher for feedback.
- Enact your role by reading aloud the script below.
-

Script : Feedback on Active Listening

Teacher: Hello! I have watched the video of the interview you took. It's a good one! I saw you being an active listener. I was happy to see you using the techniques of being a good interviewer !

I noticed you leaned forward to show that you were interested !

And ,you were smiling while the interviewee talked. Good...these are examples of excellent nonverbal listening skills.

Student I wanted to ask one question? Is it okay to interrupt the person I am interviewing?

Teacher: No,no! Never interrupt. No matter how anxious you are to hear what someone has to say, you never interrupt.

Student : But I see this happening on Television all the time! Reporters interrupt and cut off people off all the time.

Teacher: Yes, I've seen that too! But remember you're not here to get someone to confess to wrong doing or moderate a political debate. You've asked a classmate to share a very personal story. Remember what I told you in class? A good interviewer knows that the people they interview are important and conduct their interviews with respect and

Communication - Describe the steps to active listening skills

sensitivity and curiosity.

So, even if the person doesn't answer the question you ask... let them finish their thoughts and don't interrupt them.

Let me tell a very good strategy that active listeners use...that is...to wait three to five seconds, counting quietly to yourself, before you ask the next question.

If you do this you might get some very interesting facts and details which you might have missed otherwise! So never forget the cardinal rule ...show your respect for the interviewer by never interrupting!

Student Oh thank you so very much Sir! I won't ever forget this advice! But Sir, how was my interview on the whole?.

Teacher: Overall, you did a great job!

You used body language to show that you cared about the interviewee without your having to speak.

You also had very good follow-up questions.

And you can only have good follow-up questions if you are listening to what a person is saying.

Remember: don't rush them, don't interrupt them. Let them finish their thoughts. But most important, while she's talking listen, listen, and listen.

Student Oh thank you Sir! I will remember these wonderful tips! Thank you!

Adapted from Transcript :Tips for Active Listening

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C Discuss the following :

1)Which of the tips given by the teacher were nonverbal strategies?

2)Which of the tips were verbal strategies?

3)What are examples of other tips for active listening?

4)Do you know how important the strategies of pause and short silence are in active listening ?
Use short silences and do not interrupt the interviewee while interviewing.

b) Role Play:In pairs interview each other, using the following prompt:

(i) Formation of pairs:Ask one student to conduct the pairing by counting off. For example, if there are 20 students, count off one to 10 and pair students who have the same number. If there are an uneven number of students, ask your teacher to participate.

Communication - Describe the steps to active listening skills

(i) *Tell me something about yourself that might surprise me.*

(ii) While interviewing remember to practice using short silences. This means that whenever the narrator stops speaking, the interviewer should pause for six to eight seconds (counting quietly to themselves) before asking a follow-up question. During this period, the narrator is free to add any details to their story. The interviewer will then need to wait for another opportunity to ask a follow-up question.

(iii) Form Pair students up by counting off. For example, if there are 20 students, count off one to 10 and pair students who have the same number. If there are an uneven number of students, ask your teacher to participate.

Student 1 will tell their story for five minutes total, with Student 2 pausing before they ask any follow-up questions.

After you have interviewed for 5 minutes, switch roles.

Discuss :

1As the interviewer, how did it feel to pause before asking questions?

2Were the pauses helpful when you were telling your story?

3Did this listening exercise differ from the other peer interviews we have done in class? If so, how?

4Do you think people often use this method of 'short silences' in real life?

5What does it feel like when someone interrupts you?

6What do you think might cause someone to interrupt another person?

Communication - Describe the steps to active listening skills

Worksheet 5 Why should you become an Active Listener?

5 a) Think of 5 important reasons why you should become an active listener? The visuals given below in Figure 5(b) are clues to the possible answers ..

Worksheet 4 Figure 5a

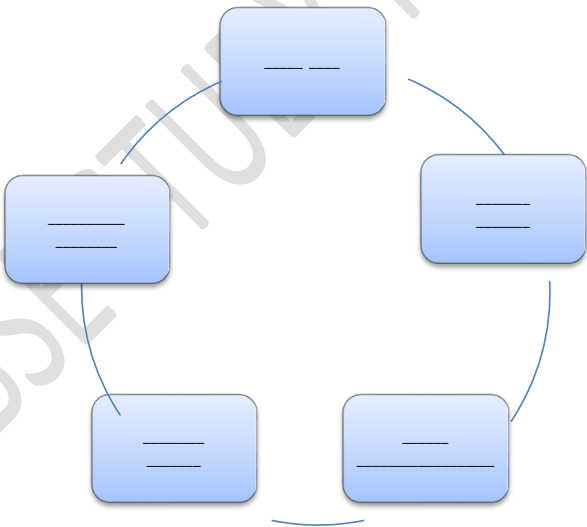


Figure 5b

Communication - Describe the steps to active listening skills



Worksheet 5(contd.) Why is Active Listening Important for Interviews and at the Workplace?

adapted from **ALISON DOYLE**

5 b) Like [critical thinking](#) and [problem-solving](#), active listening is a [soft skill](#) that's held in high regard by employers. Active listening is extremely important for interviews and at the workplace your career.

1 An active listener does the following ;

- avoids interrupting at all costs
- summarizes and repeats back what he/she has heard
- observes body language to get an extra level of understanding.

2 Active listening is a helpful skill for any worker to develop for the following reasons:

- helps you truly understand what people are saying in conversations and meetings (and not just what you *want* to hear, or *think* you hear).
- can help build rapport with your interviewer.
- can redirect one's focus from what is going on inside one's head to the needs of the prospective employer or interviewer.

Communication - Describe the steps to active listening skills

- can help reduce your nervousness during an interview.

3 An active listener shows that he/she is :

- a) interested in the organization’s challenges and successes;
- b) ready to help them problem-solve work issues, and
- c) a team player as opposed to being nothing more than a self-absorbed job candidate.

Remember the following:

- Don’t interrupt, or worse, try to answer the question before you know what the interviewer is asking.
- Listen carefully to the interviewer’s questions, ask for clarification if necessary, and wait until the interviewer has finished talking to r

5 c)1 Read about the 8 active listening techniques listed in column A:Each technique has an example given in Column B, but they are in jumbled order.

2 Match the techniques given in Column A with its corresponding example in Column B.

Number 4 i.e. brief verbal affirmations has been done for you

Worksheet 5 :Figure 6

s.n	A:Technique	B:Examples of Active Listening Techniques
1	Building trust & rapport	'How long do you expect your hiring process to last?' "What is your average rate of staff turnover?'
2	Demonstrating concern	Tell me more about your proposal to reorganize the department." "Can you please provide some history for me regarding your relationship with your former business partner?"
3	Paraphrasing to show understanding	"I was also very conflicted about returning to work after the birth of my son." "I had the responsibility of terminating four of my personnel, due to downsizing, over the last two years. Even if it's necessary, it never gets easier."
4	Brief verbal	Tell me what I can do to help." "I was really impressed to read on your

Communication - Describe the steps to active listening skills

	affirmations	website how you donate five percent of each sale to charity.”
5	Asking open-ended Q’s	“So, you are saying that the uncertainty about who will be your new supervisor is creating stress for you.” “So, you think that we need to build up our social media marketing efforts.”
6	Asking specific Q’s, seeking clarification	I am eager to help you; I know you are going through some tough challenges.” “I know how hard a corporate restructuring can be – how is staff morale at this point?”
7	Waiting to disclose your opinion	“ I understand that you would like more frequent feedback about your performance.” “Thank you. I appreciate your time in speaking to me.” “I see,. I understand..Sure etc
8	Disclosing similar experiences to show understanding	I can see that John's criticism was very upsetting to you. Which aspect of his critique was most disturbing?” “It’s clear that the current situation is intolerable for you. What changes would you like to see?”

Tips for becoming an Active Listener!

- Don’t interrupt, or worse, try to answer the question before you know what the interviewer is asking.
- Listen carefully to the interviewer’s questions, ask for clarification if necessary, and wait until the interviewer has finished talking to r

Finally never underestimate the power of “soft skills” (also known as “people skills”) like active listening, problem-solving, flexibility, self-motivation, leadership, and teamwork. Your CV or resume may look great, but don’t forget to nourish your soft skills.

Especially for young, first-time job candidates with limited work experience, these people skills often are the deciding factor in whether an employer will be willing to take the risk in hiring

Communication - Describe the steps to active listening skills

them over others who may have more experience (but possibly weaker interpersonal communications talents). Don't forget to highlight your soft skills in your interview (and even in your resume).

5d Using all that you have learnt about Active Listening prepare posters on the following topics:

- (i) What is Active Listening?
- (ii) Why is Active Listening important?
- (iii) How to become an Active Listener?
- (iv) How to be successful in your interview?
- (v) Think of effective slogans to get your message across!

ANSWERS

Worksheet 2 Answers: Figure 2

Communication - Describe the steps to active listening skills

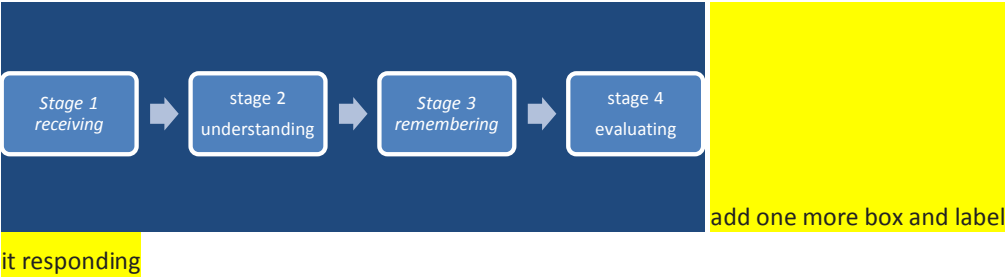
LISTENING
VERSUS
HEARING

Hearing is passive	Listening is active
Refers to the act of perceiving a sound through the ear	Refers to the act of making a conscious effort to perceive the sound
Does not require a conscious effort	Requires a conscious effort
Involuntary	Voluntary


Pediaa.com

Worksheet 3 Answers: Figure 3

Communication - Describe the steps to active listening skills

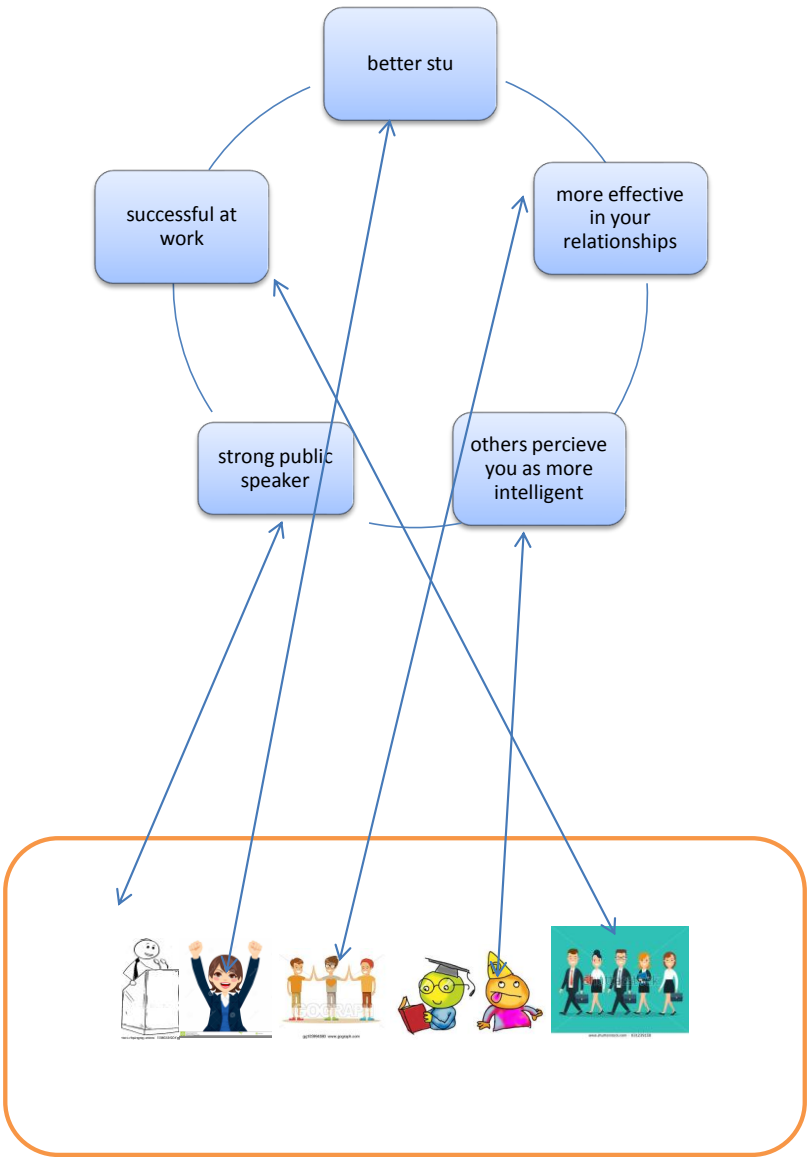


Worksheet 4 Answers: Figure 4

A	B	C
s.n a) stage <u>1</u>	stages of listening <u>receiving</u> 	<ul style="list-style-type: none">this stage is represented by the ear because it is the primary tool involved with this stage of the listening process
b stage <u>2</u>	<u>understanding</u>	<ul style="list-style-type: none">attempts to figure out the meaning of the message.
c stage <u>3</u>	<u>remembering</u>	<ul style="list-style-type: none">receiver either places information into long-term memory or forgets the information presented
d stage <u>4</u>	<u>evaluating</u>	<ul style="list-style-type: none">listener judges the content of the message or the character of the speaker.
e stage <u>5</u>	<u>responding</u>	<ul style="list-style-type: none">receiver provides verbal or nonverbal feedback about the speaker or message.

Communication - Describe the steps to active listening skills

Worksheet 4 Answers: Figure 5



Worksheet 5 Answers: Figure 6

Communication - Describe the steps to active listening skills

s.n	A:Techniques	B: Examples of Active Listening Techniques
1	Building trust & rapport	'How long do you expect your hiring process to last?' "What is your average rate of staff turnover?'
2	Demonstrating concern	Tell me more about your proposal to reorganize the department." "Can you please provide some history for me regarding your relationship with your former business partner?"
3	Paraphrasing to show understanding	"I was also very conflicted about returning to work after the birth of my son." "I had the responsibility of terminating four of my personnel, due to downsizing, over the last two years. Even if it's necessary, it never gets easier."
4	Brief verbal affirmations	Tell me what I can do to help." "I was really impressed to read on your website how you donate five percent of each sale to charity."
5	Asking open-ended Q's	"So, you are saying that the uncertainty about who will be your new supervisor is creating stress for you." "So, you think that we need to build up our social media marketing efforts."
6	Asking specific Q's, seeking clarification	I am eager to help you; I know you are going through some tough challenges." "I know how hard a corporate restructuring can be – how is staff morale at this point?"
7	Waiting to disclose your opinion	" I understand that you would like more frequent feedback about your performance." "Thank you. I appreciate your time in speaking to me." I see,...I understand...,Sure etc
8	Disclosing similar experiences to show understanding	I can see that John's criticism was very upsetting to you. Which aspect of his critique was most disturbing?" "It's clear that the current situation is intolerable for you. What changes would you like to see?"

Communication - Describe the steps to active listening skills

Worksheet 5 Answers: Figure 6

A:Techniques		B:Examples of Active Listening Techniques
1	Building trust & rapport	"Tell me what I can do to help." "I was really impressed to read on your website how you donate five percent of each sale to charity."
2	Demonstrating concern	"I am eager to help you; I know you are going through some tough challenges." "I know how hard a corporate restructuring can be – how is staff morale at this point?"
3	Paraphrasing to show understanding	"So, you are saying that the uncertainty about who will be your new supervisor is creating stress for you." "So, you think that we need to build up our social media marketing efforts."
4	Brief verbal affirmations	" I understand that you would like more frequent feedback about your performance." "Thank you. I appreciate your time in speaking to me." "I see,..I understand..,Sure etc
5	Asking open-ended Q's	I can see that John's criticism was very upsetting to you. Which aspect of his critique was most disturbing?" "It's clear that the current situation is intolerable for you. What changes would you like to see?"
6	Asking specific Q's, seeking clarification	"How long do you expect your hiring process to last?" "What is your average rate of staff turnover?"
7	Waiting to disclose your opinion	Tell me more about your proposal to reorganize the department." "Can you please provide some history for me regarding your relationship with your former business partner?"
8	Disclosing similar experiences to show understanding	"I was also very conflicted about returning to work after the birth of my son." "I had the responsibility of terminating four of my personnel, due to downsizing, over the last two years. Even if it's necessary, it never gets easier."

Session 1

Introduction to Presentation Software

A **presentation** is a systematic display of information. It consists of a number of slides containing text, graphics, movies, sound, and graphs. Slides of a presentation are displayed one by one on the screen.

Some common terms used in a Presentation software are:

Slides are the individual pages of a presentation. Each slide may contain text, graphics, movies, and sound.

Handouts are very small images of slides printed together on a sheet of paper, which can be given to the viewers for reference.

Speaker notes are notes added to the slides as a reference for the presenter. They are not visible to the audience during a presentation.

There are different softwares like MS Powerpoint, OpenOffice Impress that can be used to create a presentation.

You will learn how to create a simple presentation in OpenOffice Impress.

OpenOffice Impress is a part of the OpenOffice.org suite. It is used for creating effective multimedia presentations.

STARTING OPENOFFICE IMPRESS

To start OpenOffice Impress,

1. click **Start** ➤ **All Programs** ➤ **OpenOffice.org 4.1.5** ➤ **OpenOffice.org Impress**.
2. The **Presentation Wizard** dialog box appears (**Fig 1**). Select the desired option from the following:
 - a. **Empty presentation** - Choosing this option starts a new blank presentation.
 - b. **From template** – You can choose this option to create a presentation using a predesigned template.
 - c. **Open existing presentation**- You can choose this option to open an already saved presentation that you can work on.
3. Select **Empty Presentation**.
4. Click **Create**.

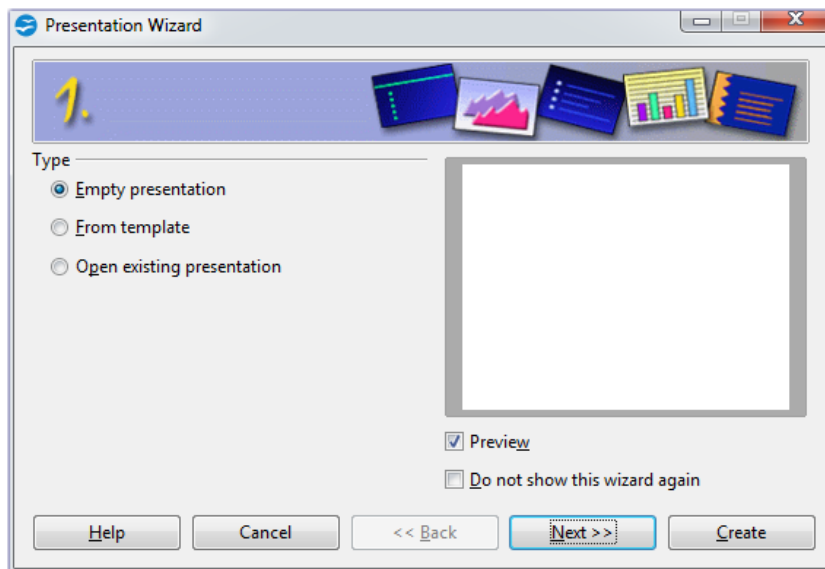


Fig 1 Presentation Wizard dialog box

5. The Impress window screen appears with a blank presentation named **Untitled 1** by default (Fig. 2).

Components of OpenOffice Impress Window

The various components of the Impress window are shown in **Figure 2**.

Study Material

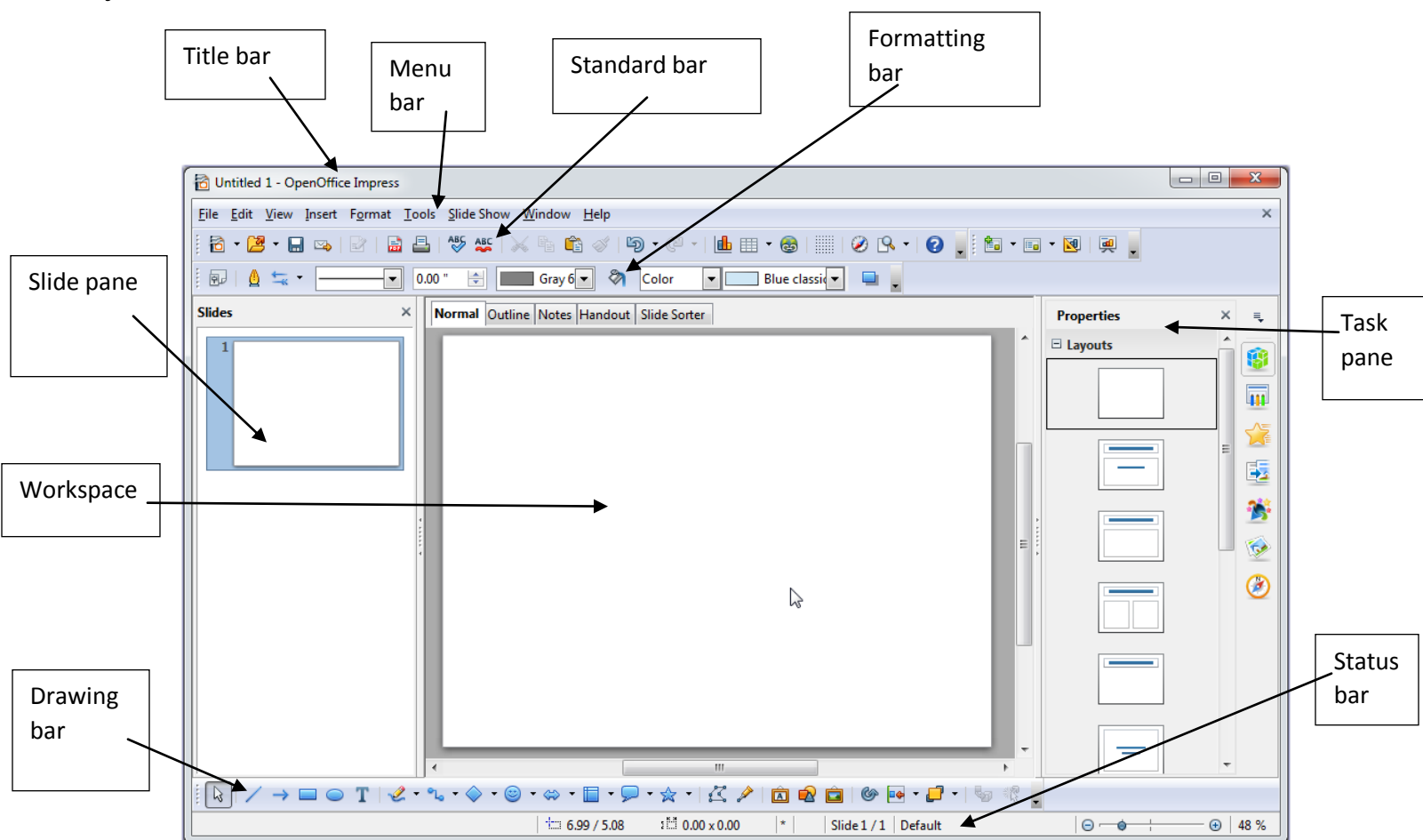


Fig. 2 OpenOffice.org Impress window

Title bar It is located at the top and displays the name of the application and the name of the current document

Menu bar It is located below the Title bar and contains different menu options.

Standard bar It contains icons for the most commonly used commands.

Formatting bar It contains the buttons for the commonly used formatting commands.

Slide pane It is located at the extreme left and shows the thumbnail view of various slides in a presentation.

Drawing bar It contains the buttons for the most commonly used drawing tools.

Workspace It is the main work area to create or modify individual slides

Task pane It is positioned to the right. It contains features such as slide layout and slide transition to format the slides.

Status bar It is positioned at the bottom and displays information such as slide number and zoom level.

ADDING SLIDES TO A PRESENTATION

Inserting a New Slide

You can insert a new slide in OpenOffice.org Impress presentation in any one of the following ways:

- Select **Slide** option from the **Insert** menu. (Fig 3)
- Right-click on a slide in the **Slide** pane and select **New Slide** in the shortcut menu. (Fig 4)
- Click on the **Slide** icon on the **Standard** bar. (Fig 5)

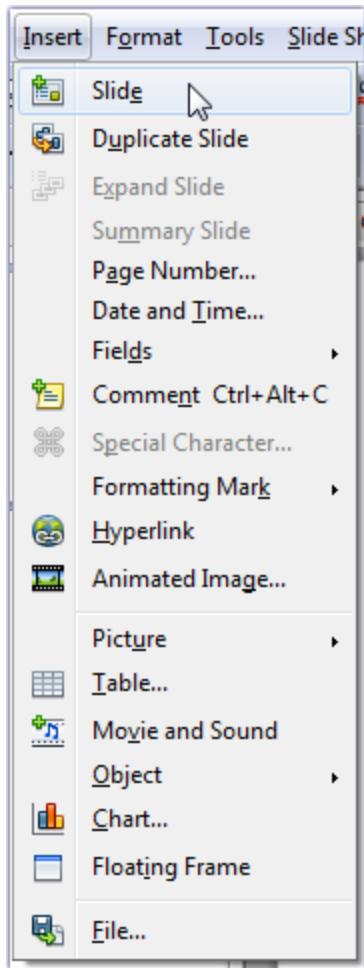


Fig 3 Slide option of Insert menu

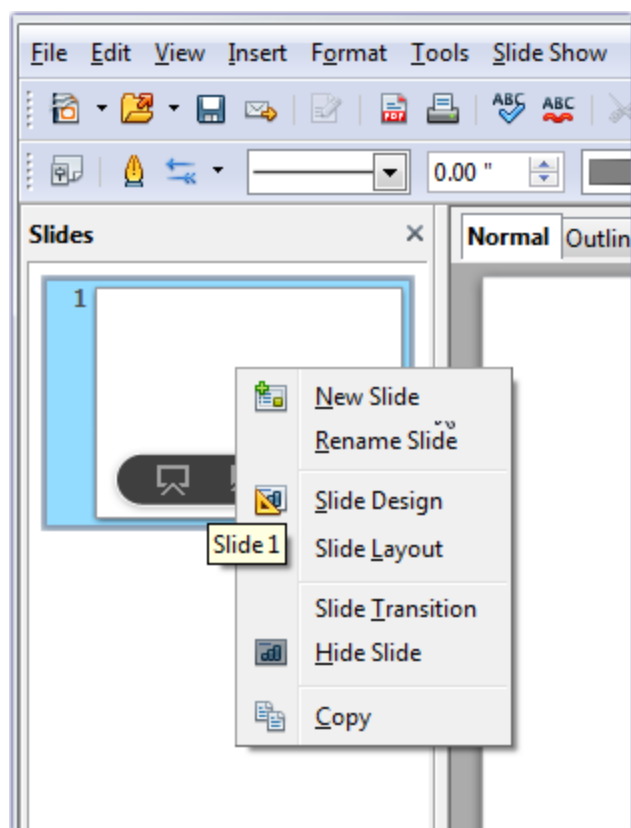


Fig 4 Shortcut menu



Fig 5 Slide icon on Standard bar

Deleting a Slide

To delete a slide:

1. Select the slide in the Slide pane.
2. Press **Delete** key.

Changing the Slide Layout

To change the slide layout in Impress, the steps are:

1. Select the slide.
2. Click the **Slide Layout** icon on the **Standard** bar. (**Fig 6**)
3. Different slide layouts are displayed. Click on a suitable layout.

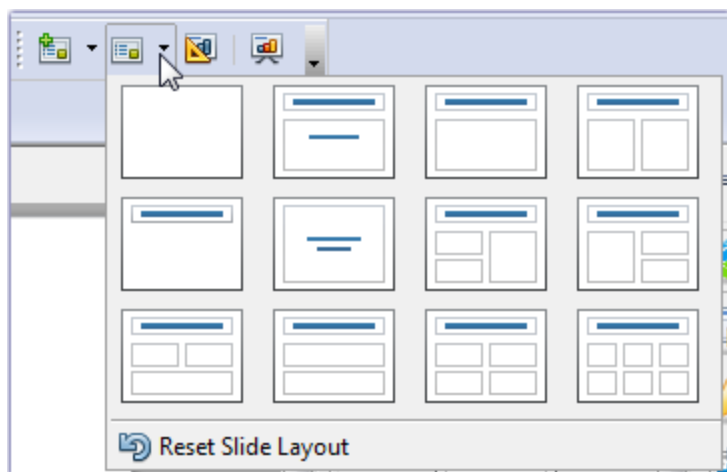
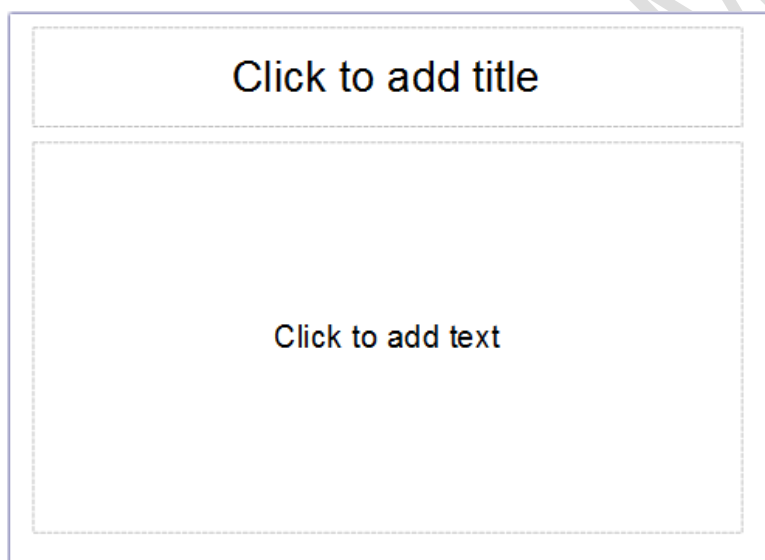


Fig 6 Selecting Slide Layout

Entering text in a slide

You can enter text in a text box in a slide.



If you have selected a blank slide, you can insert a text box at the desired position.

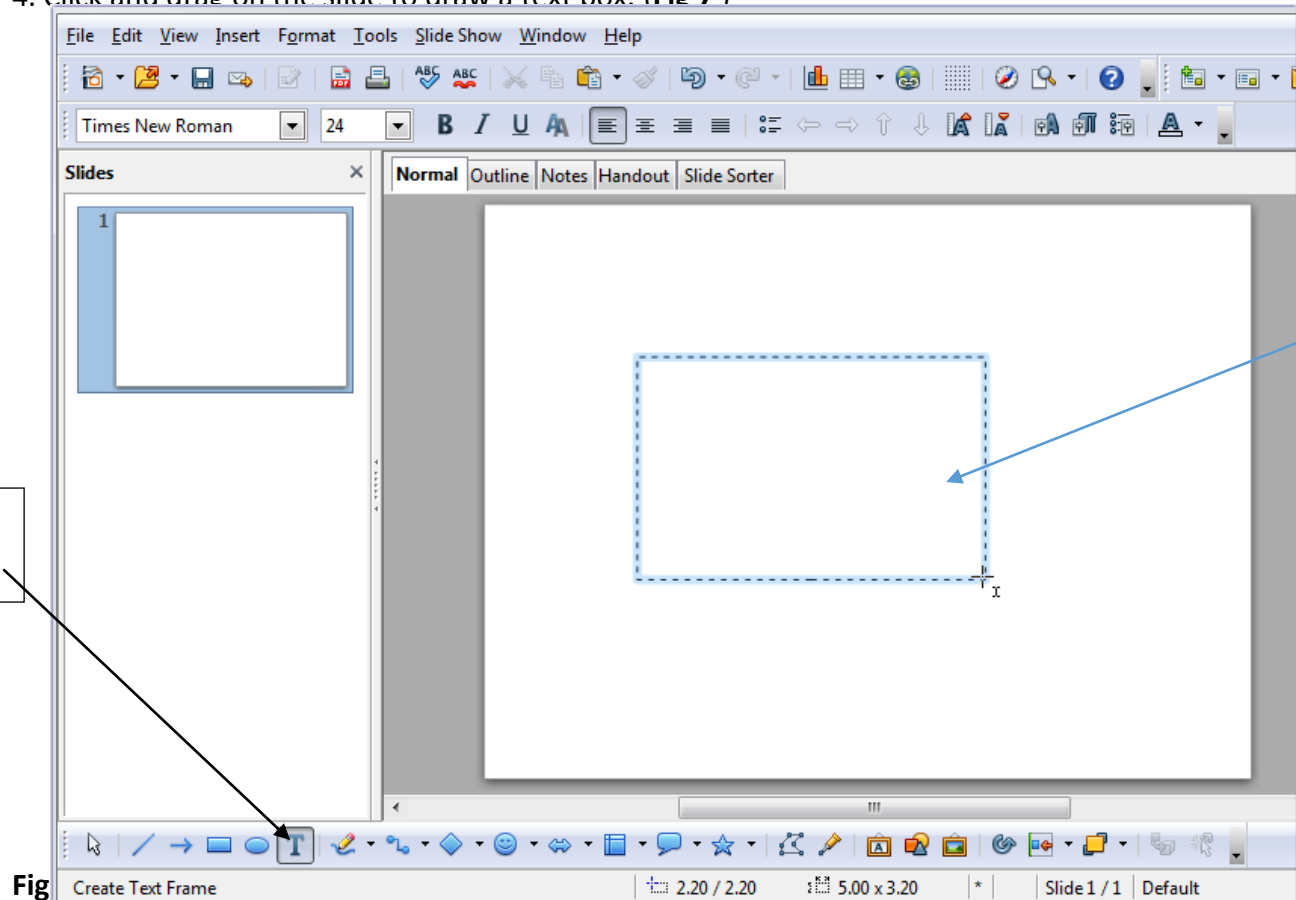
Inserting a Text Box

You can insert a Text box using Text button on the Drawing bar. If the **Drawing** bar is not visible, select **View** ➤ **Toolbars** ➤ **Drawing** to make it visible.

The steps to insert a text box in a slide are:

1. Click the **Text** button on the **Drawing** bar.

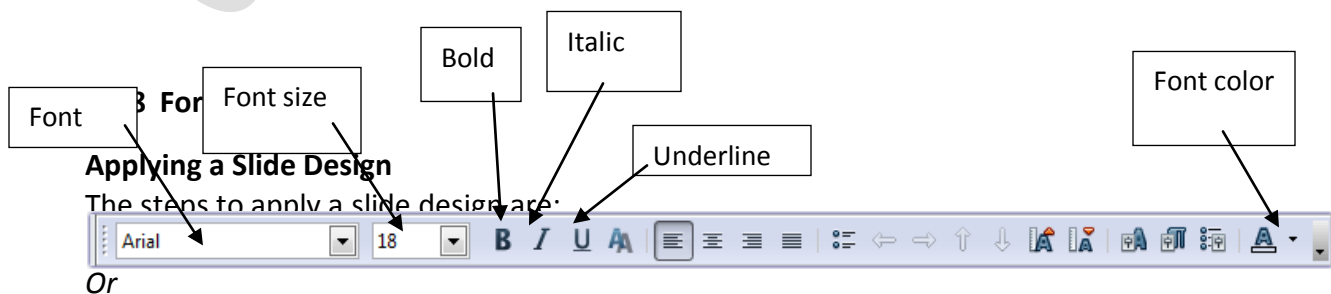
2. The mouse pointer changes to + the sign.
3. Place the mouse pointer on the slide where you want to add the text box.
4. Click and drag on the slide to draw a text box. (**Fig 7**)



Editing and Formatting Text

Like OpenOffice Writer, OpenOffice Impress includes all the basic editing features —copy, move, insert, delete, spell-check, etc. You can also format the text, i.e. change the font, style, size, font color, etc.

You can use the formatting options in the Formatting bar to change the font, size and color of the text (**fig 8**)



Click the **Slide Design** button on the **Standard** bar. (Fig 10)

Or

Right-click on any slide in the **Slide** pane and select **Slide Design** in the shortcut menu. (Fig 11)

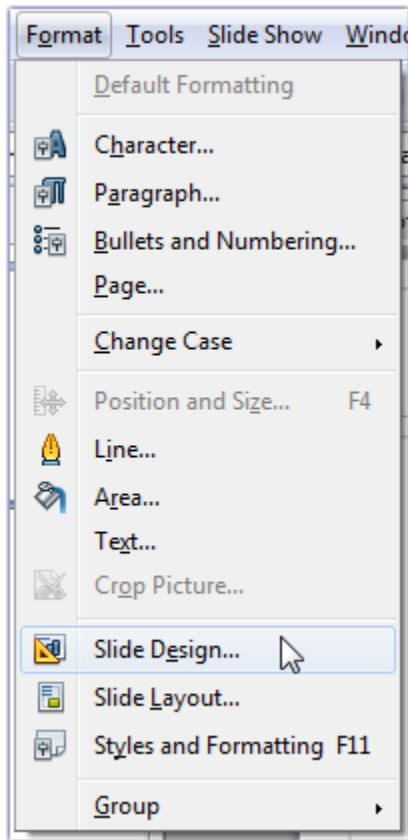


Fig 9 Slide Design option from the Format menu

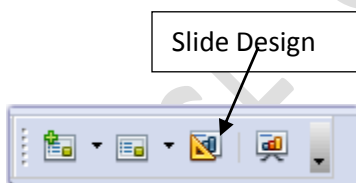


Fig 10 Slide design button on the Standard bar

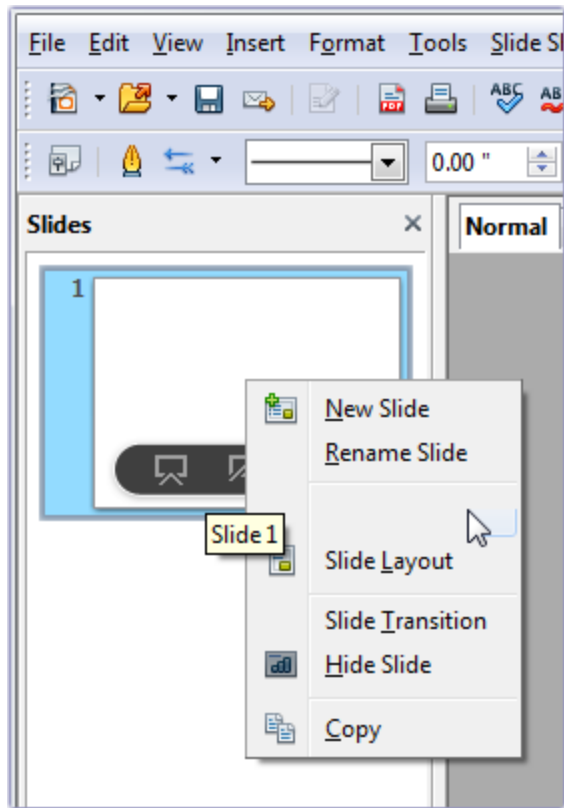


Fig 11 Shortcut menu

2. The **Slide Design** dialog box appears (Fig. 12).

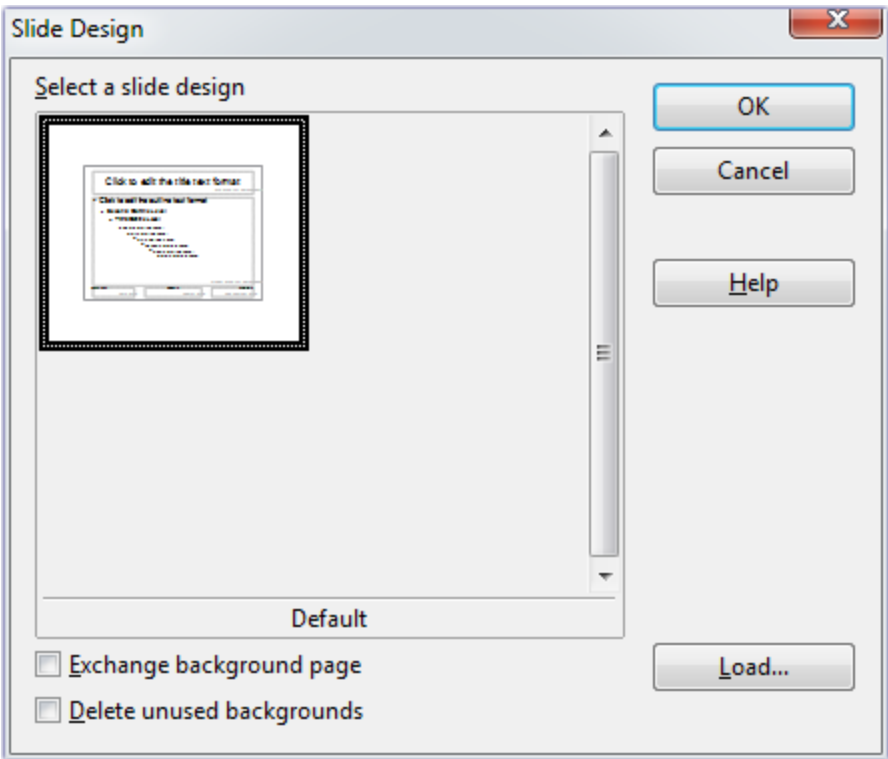


Fig. 12 Slide Design dialog box

3. Click the **Load** button. The **Load Slide Design** dialog box appears (Fig 13)

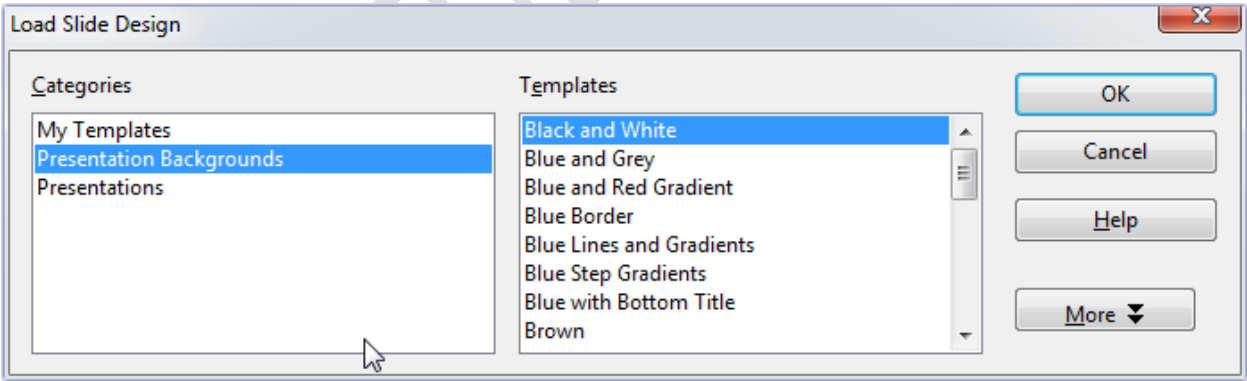


Fig. 13 Load Slide Design dialog box

4. Select **Presentation Backgrounds** in the **Categories** section. Select the desired template from the list. You can also click **More** to get the **Preview** box. Select the **Preview** checkbox (Fig. 14).

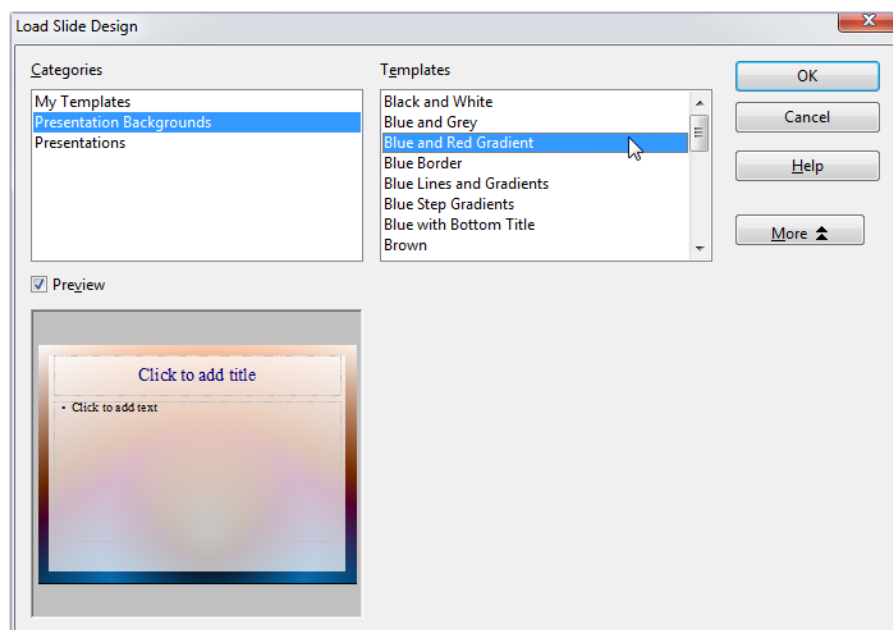


Fig 14 Preview option in the **Load Slide Design** dialog box

4. Click **OK**. The **Slide Design** dialog box reappears.
5. Click **OK**.

Changing Background Style

The steps to change the slide background in OpenOffice.org Impress, are:

1. Select **Page** option from the **Format** menu. (Fig 15)
2. The **Page Setup** dialog box appears.
3. Click the **Background** tab.
3. Click the **Fill** drop-down menu arrow and choose the desired fill effect (Fig. F8-16).

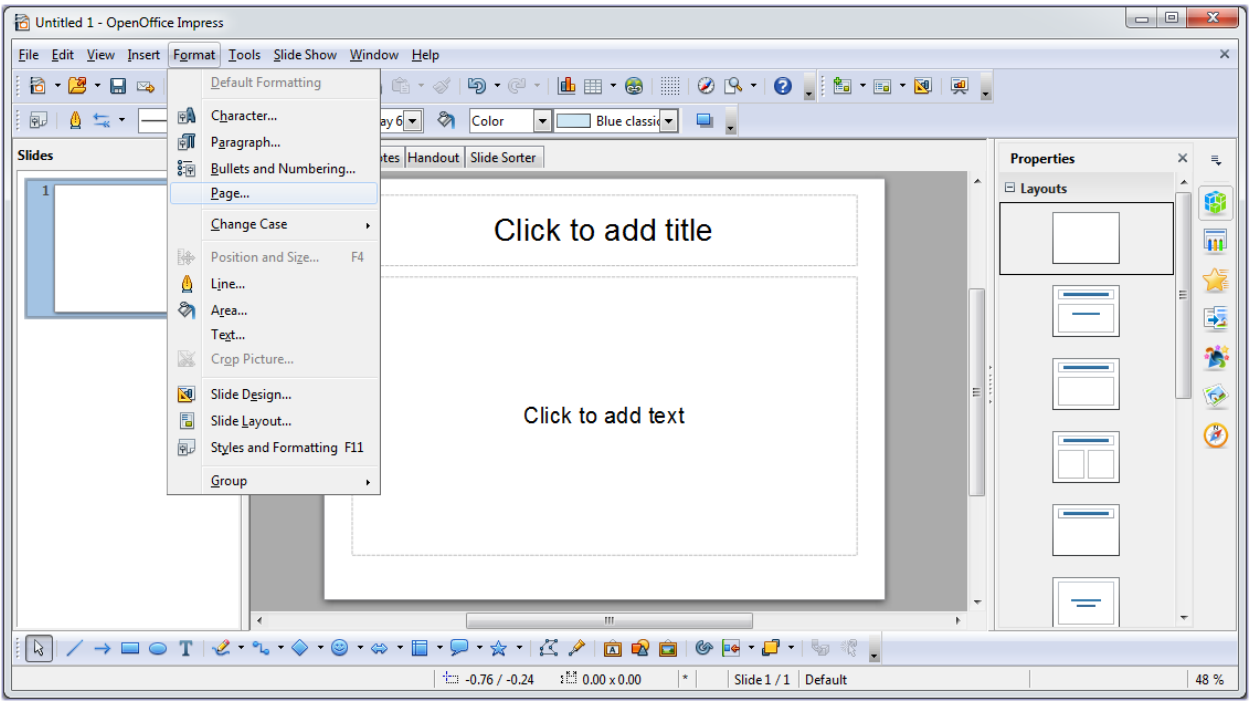


Fig 15 Page option of Format menu

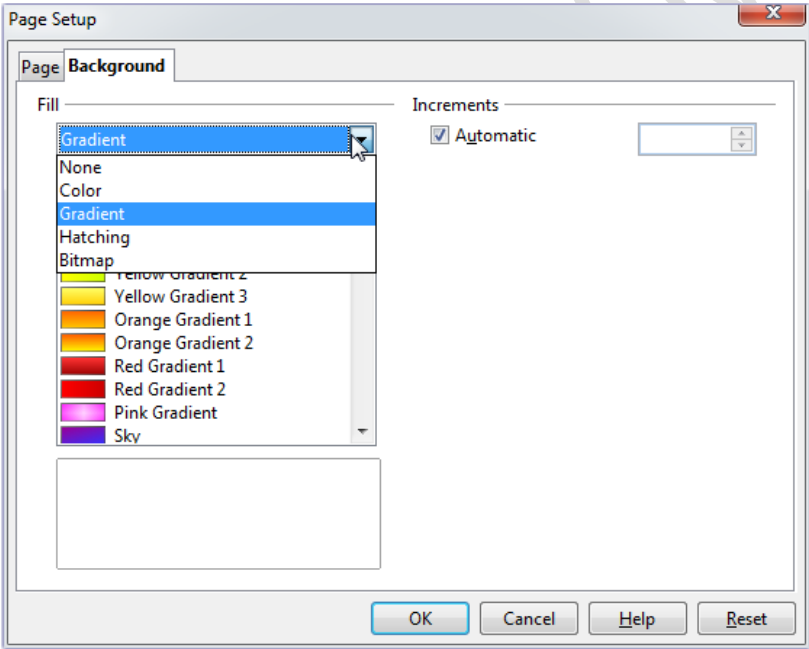


Fig. 16 Background tab of Page Setup dialog box

4. A message box appears (**Fig. 17**). Click **Yes** if you want to use the selected background style for all the slides. Click **No** if you want to set it only for the current slide.

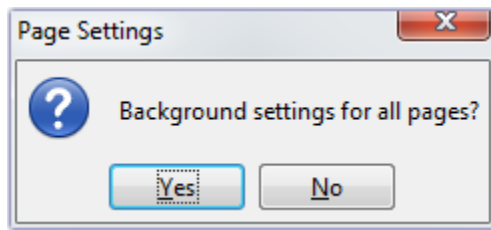


Fig. 17 Page Settings message box

SAVING A PRESENTATION

The steps to save a presentation are as follows:

1. Select Save option from the File menu.

Or

Click the **Save** button on the **Standard** bar.

Or

Press Ctrl + Shift + S.

2. The **Save As** dialog box appears. (**Fig 18**) Select the drive and the folder where you want to save the presentation.

3. Give a name to the file in the **File name** text box.

4. Click **Save**. Your presentation will be saved with a **.odp** extension.

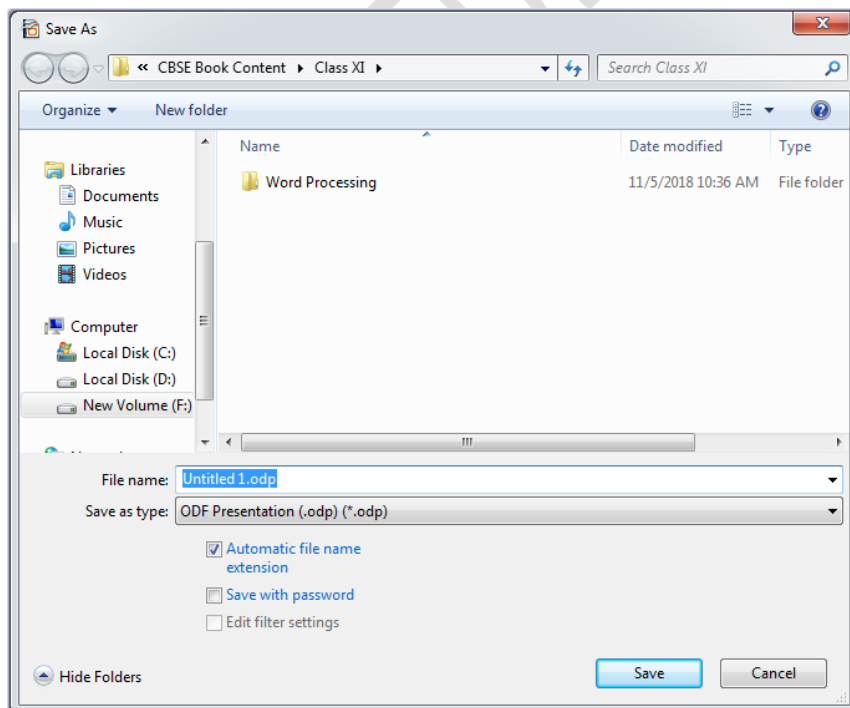


Fig 18 Save As dialog box

CLOSING A PRESENTATION

A presentation can be closed in any one of the following ways:

- Select Close option from the File menu.
- Click the **Close Document** button on the right side of the **Menu** bar.

EXITING IMPRESS

To exit OpenOffice.org Impress, the steps are:

- Select **Exit** option from **File** menu.

Or

- Click the **Close** button at the top-right corner of the **Title** bar.

OPENING A PRESENTATION

To open an already saved presentation the steps are:

1. Select **Open** option from the **File** menu.

Or

Click the **Open** button on the **Standard** bar.

Or

Press Ctrl + O.

2. The **Open** dialog box appears. (Fig 19) Select the file and click **Open**.

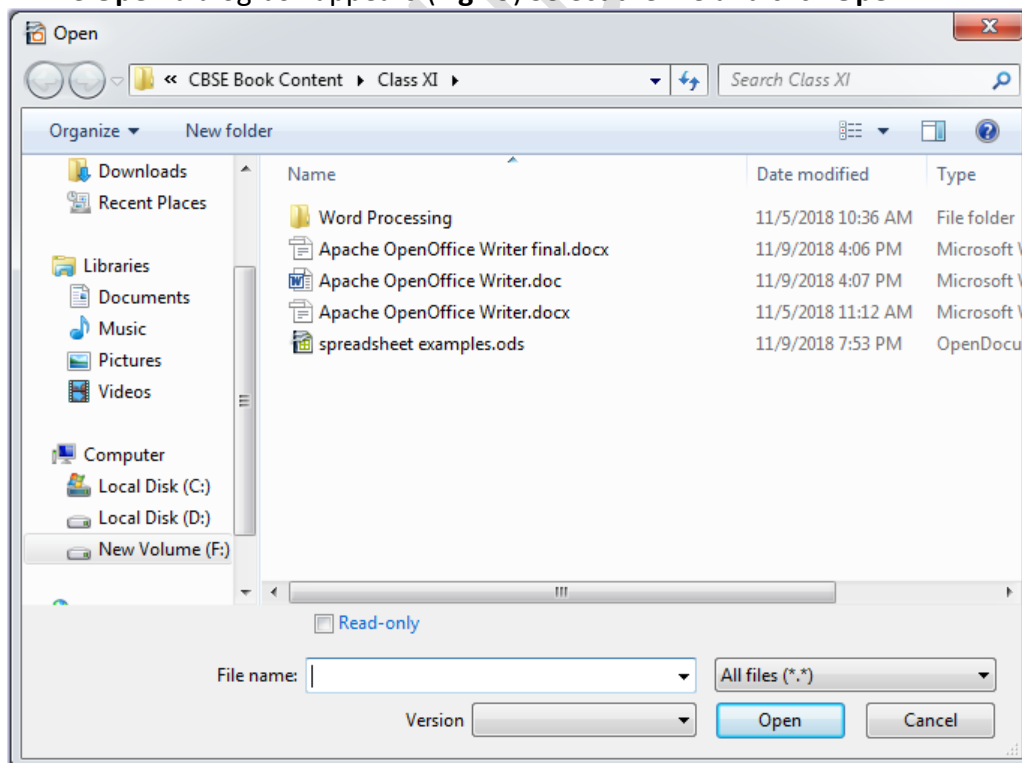


Fig 19 Open dialog box

Lets Try It

1. Create a new blank presentation.
 - a. Add 4-5 slides on the topic Pollution’.
 - b. Change the slide design.
 - c. Select desired font, size, and color for the text and the heading.
 - d. Save the presentation.

Worksheet

1. Name any two softwares used for creating presentation.

2. What do you mean by a slide?

3. Name the bar present at the top of the Impress window.

4. How can you delete a slide?

5. Write keyboard shortcut to save a presentation.

Session 2

VIEWING AND ORGANIZING SLIDES

A presentation in OpenOffice Impress can be viewed in following ways:

Normal View

The **Normal** view is the default view that is used to create and edit slides. This view has three panes:

- **Slide** pane,
- **Task** pane, and
- the **Workspace** showing the current slide.

To open the **Normal** view (**Fig. 20**):

- Select **Normal** option from the **View** menu.

Or

- Click the **Normal** tab above the workspace.

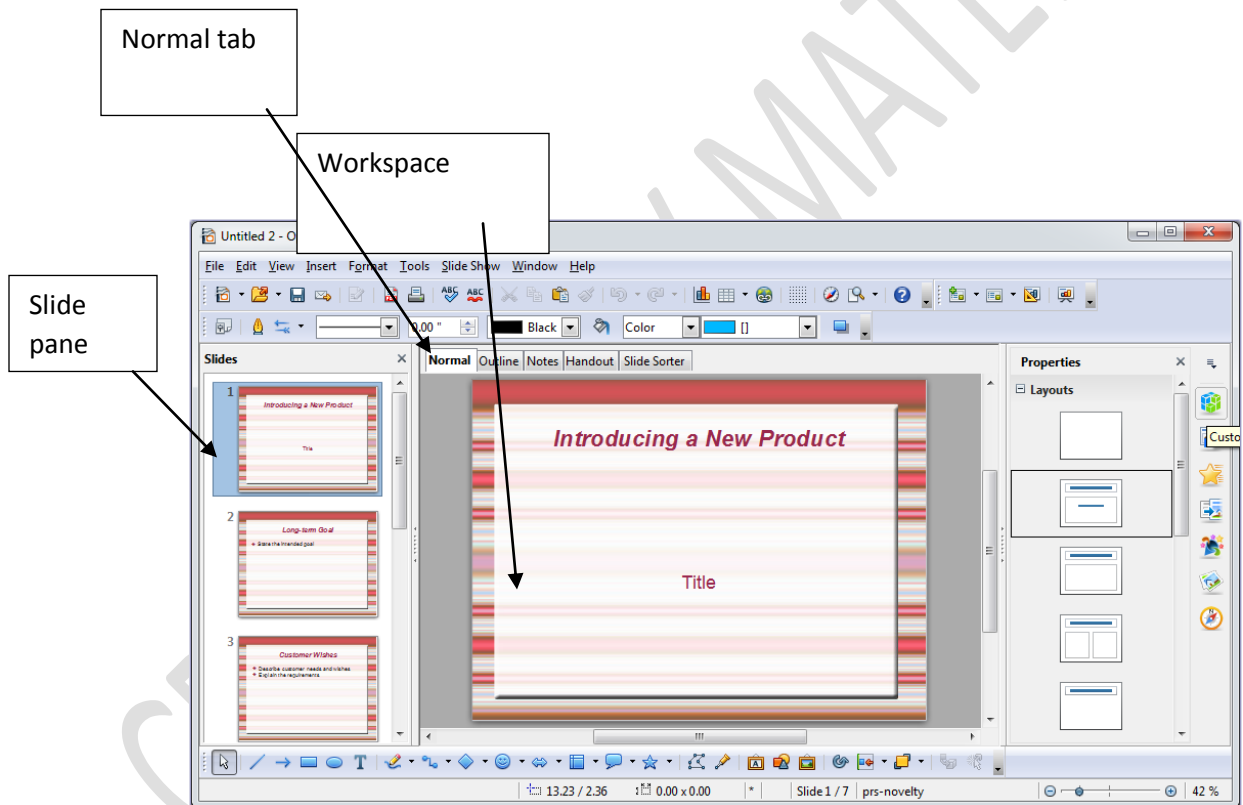


Fig. 20 Normal view

Outline View

The **Outline** view shows the **Slide** pane and textual content of all the slides in a presentation.

The steps to open the **Outline** view are: (**Fig. 21**):

- Select **Outline** option from **View** menu.

Or

- Click the **Outline** tab above the workspace.

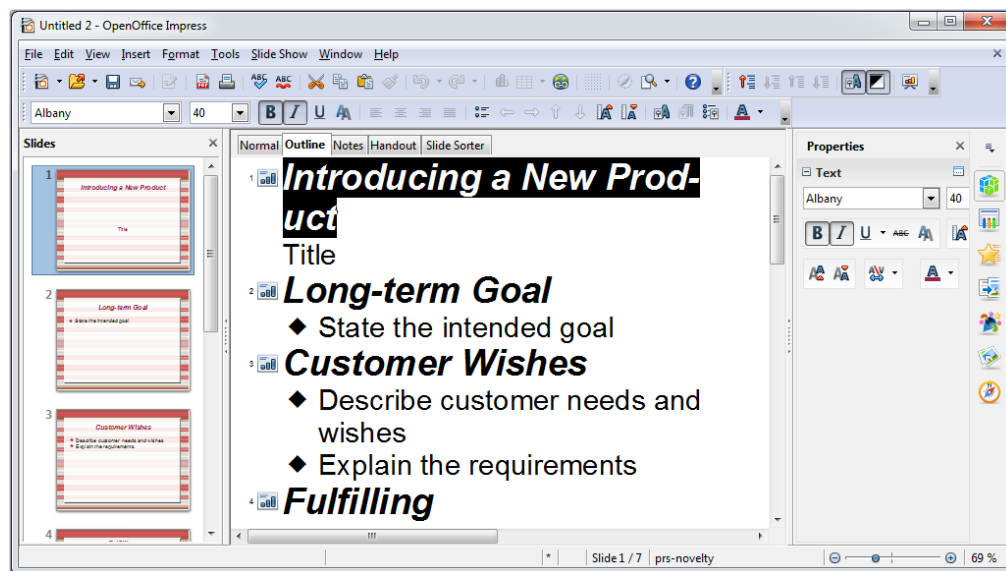


Fig. 21 Outline view

Notes View

The **Notes** view is used to add notes to a slide. These notes are not visible to the audience during the slide show.

To enter notes in a slide (**Fig. 22**), follow these steps:

1. Select Notes Page option from View menu.

Or

Click the **Notes** tab above the workspace.

2. Select a slide from the **Slide** pane.
3. Click and type the notes in the space provided.

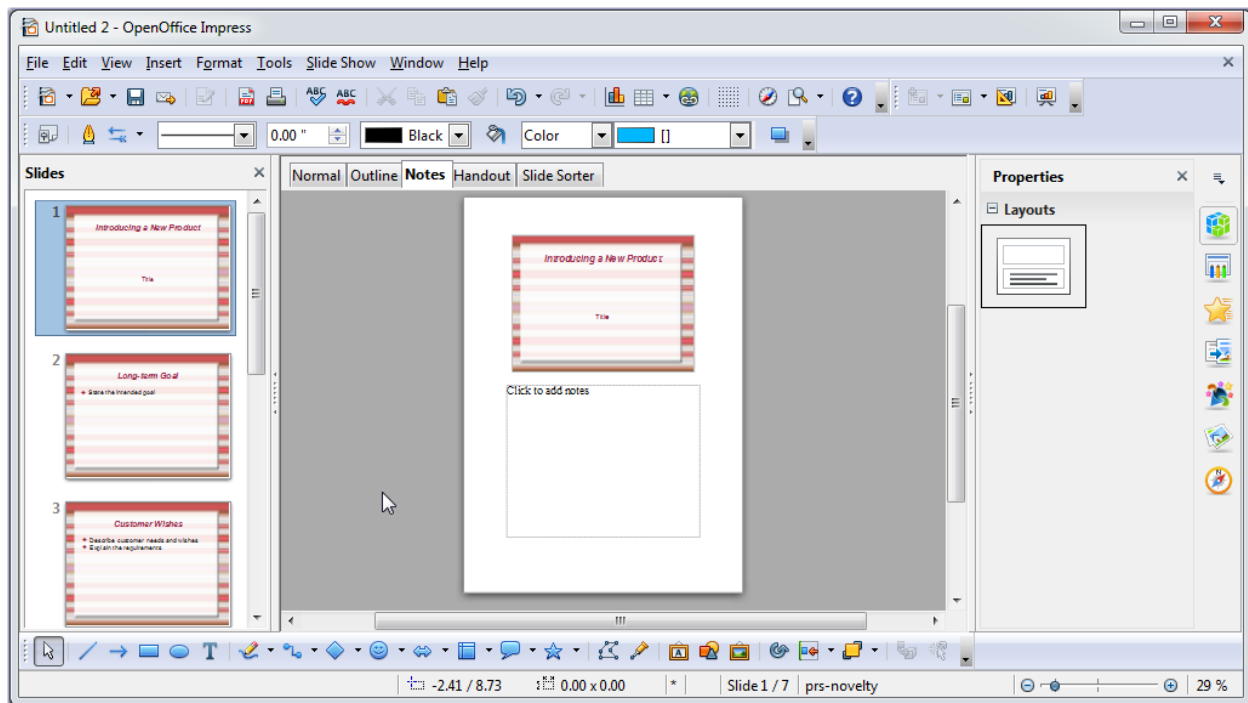


Fig. 22 Notes view

Handout View

In the **Handout** view, you can adjust the number of slides to be printed on each page.

To open the **Handout** view (**Fig. 23**):

- Select **Handout Page** option from the **View** menu.

Or

- Click the **Handout** tab above the workspace.

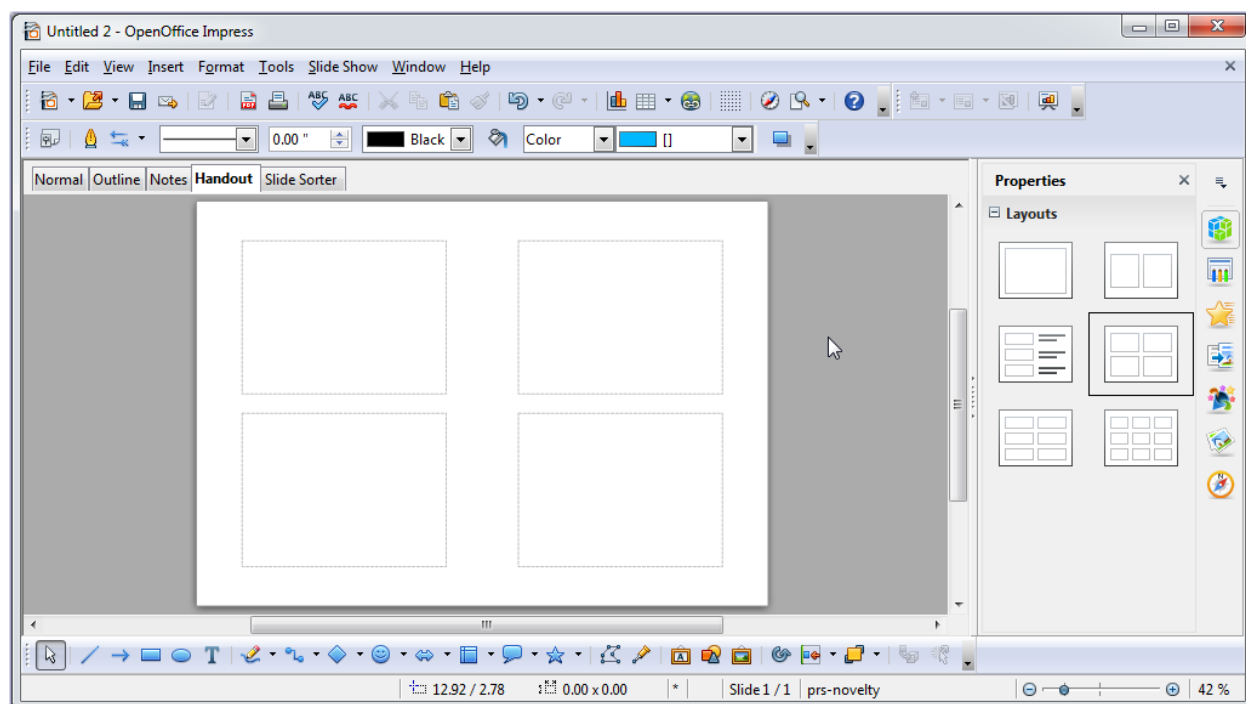


Fig. 23 Handout view

Slide Sorter View

The **Slide Sorter** view displays miniature forms of all the slides in a presentation.

To open the **Slide Sorter** view (**Fig. 24**):

- Click the **View** button and then click **Slide Sorter** in the drop-down menu.

Or

- Click the **Slide Sorter** tab above the workspace.

In this view, you can easily delete a slide, change the order of the slides, insert a new slide.

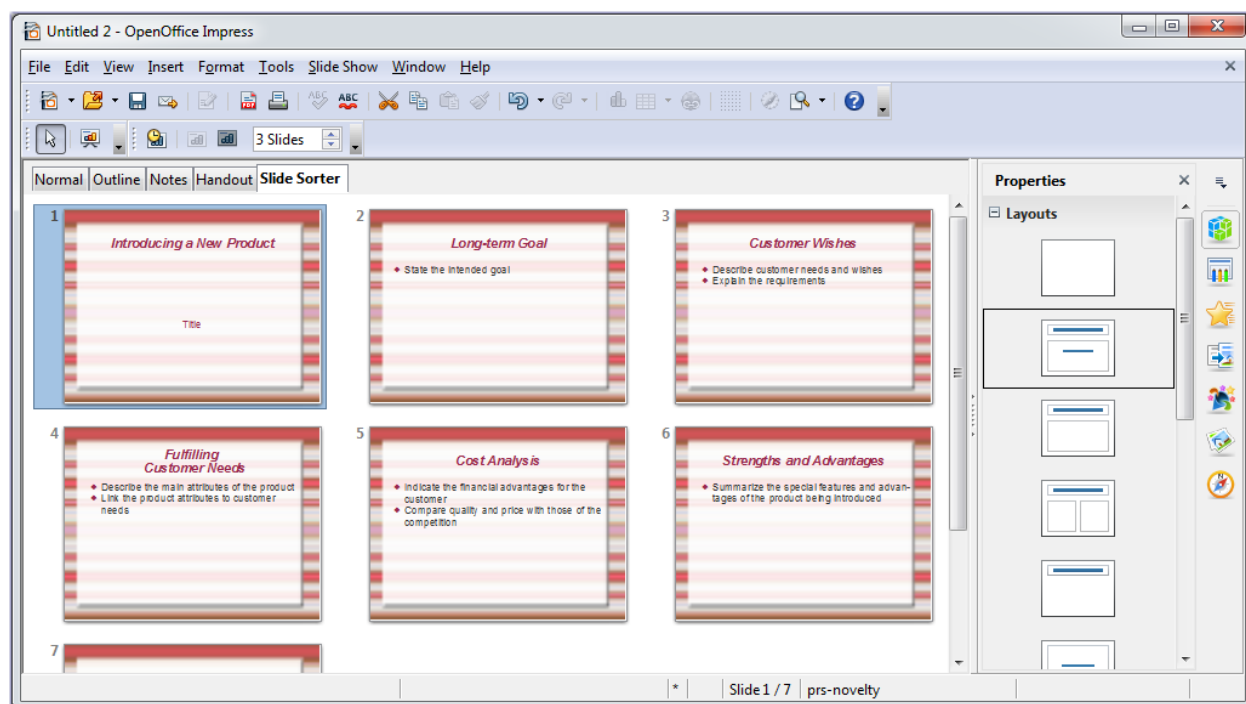


Fig. 24 Slide Sorter view

Commands used in **Normal** and **Slide Sorter** views

Action

Select consecutive multiple slides

Select non-consecutive multiple slides

Delete slide(s)

Move slide(s)

Option

Hold down the SHIFT key and select the slides.

Hold down the CTRL key and select the slides.

Select slide(s) and press the DELETE key.

Select the slide(s) and drag to the new location.

INSERTING IMAGES

You can insert image in a slide using any one of the following ways:

- Gallery
- From File

Inserting Images Using Gallery

The steps to insert an image using the gallery are:

1. Select **Gallery** option from the **Tools** menu. (Fig 25)

Or

Click the **Gallery** icon on the **Drawing** bar. (Fig 26)

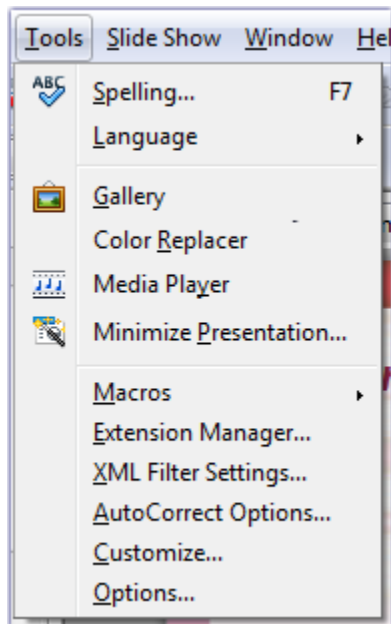


Fig 25 Gallery option of Tools menu



Fig 26 Drawing bar

2.The **Gallery** appears above the workspace (Fig. 27).

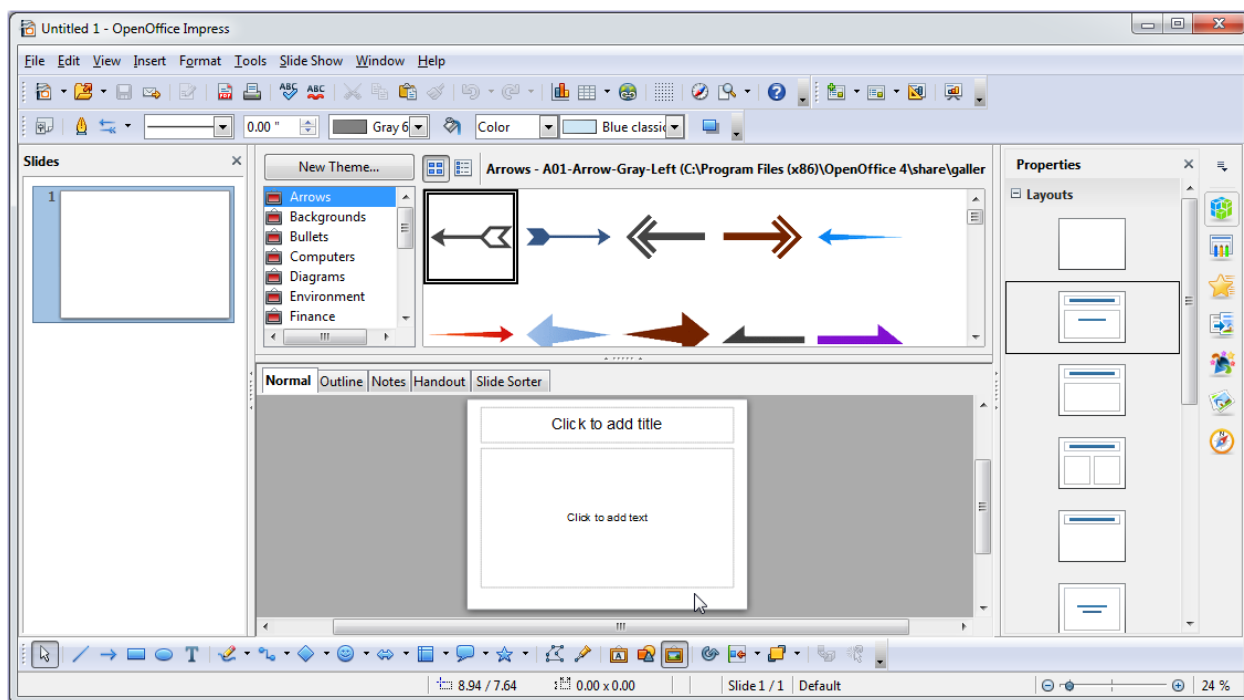


Fig 27 Gallery

3. Select the theme from the left section of the gallery area. The images of that theme will get listed on the right side.
4. Click on the required image. Drag the image and drop it on the slide.
5. To close the Gallery, select **Tools Gallery**.

Inserting Pictures from File

The steps to insert a picture from a file are:

1. Select **Insert ➤ Picture ➤ From File**.
2. The **Insert picture** dialog box appears (**Fig. 28**).
2. Locate the picture you want to insert and click **Open**.

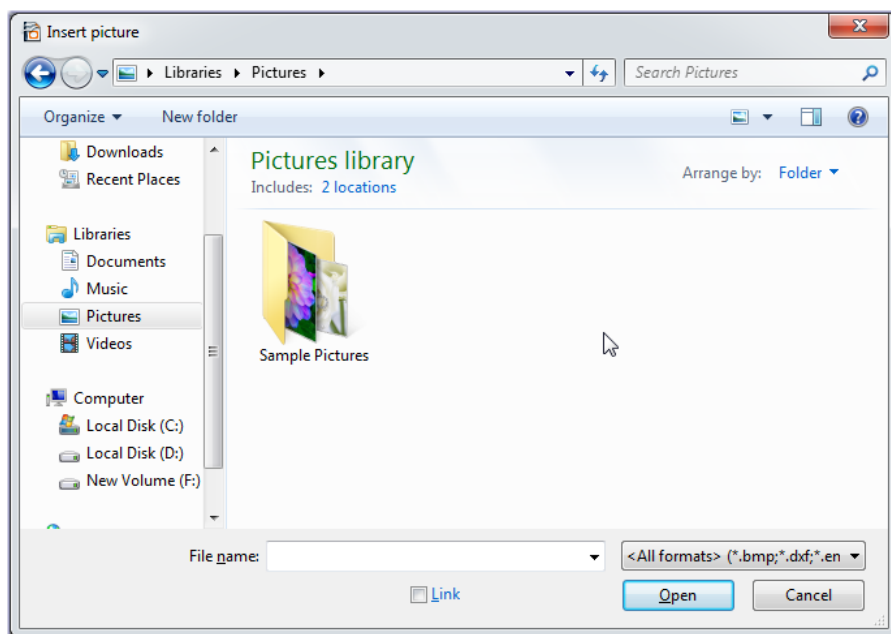


Fig. 28 Insert picture dialog box

Editing a Picture

When you select a picture, **Picture** toolbar appears (**Fig. 29**). You can use the tools of this toolbar to edit the picture.

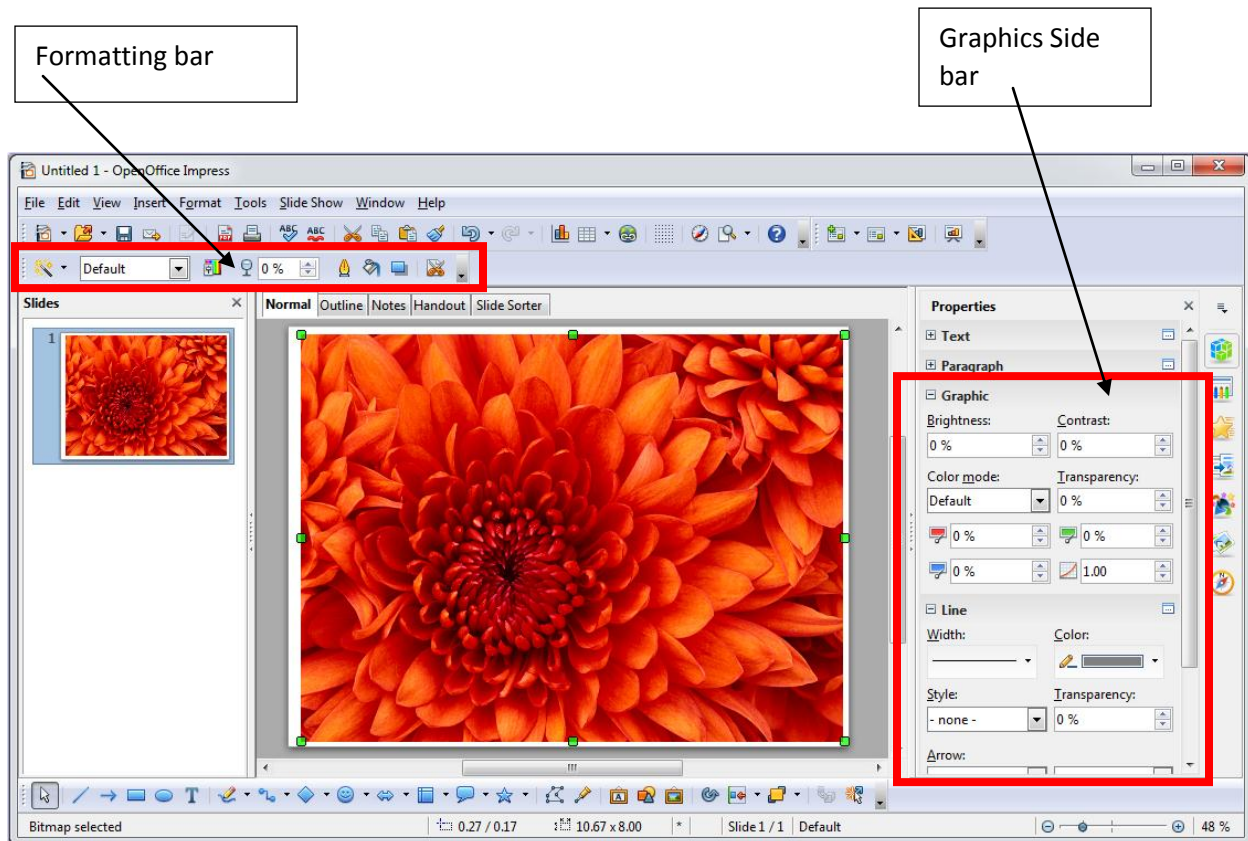


Fig. 29 Picture toolbar

USING FONTWORK GALLERY

In OpenOffice Impress, **Fontwork Gallery** is used to apply special effects to the text.

The steps to use the **Fontwork Gallery** are:

1. Click the **Fontwork Gallery** button on the **Drawing** bar. (Fig 30)
2. The **Fontwork Gallery** dialog box appears (Fig. 31).
3. Select a Fontwork style and click **OK**.
4. The selected Fontwork design will appear on the slide (Fig. 32).
5. Double-click the Fontwork design. The default text, i.e., Fontwork will appear in editing mode (Fig. 33).

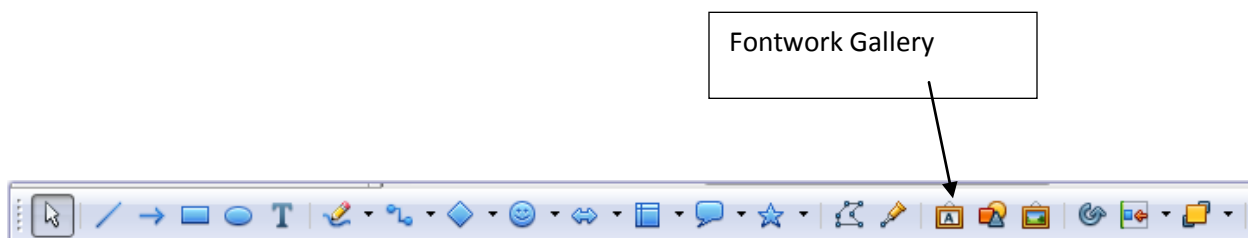


Fig. 30 Drawing bar

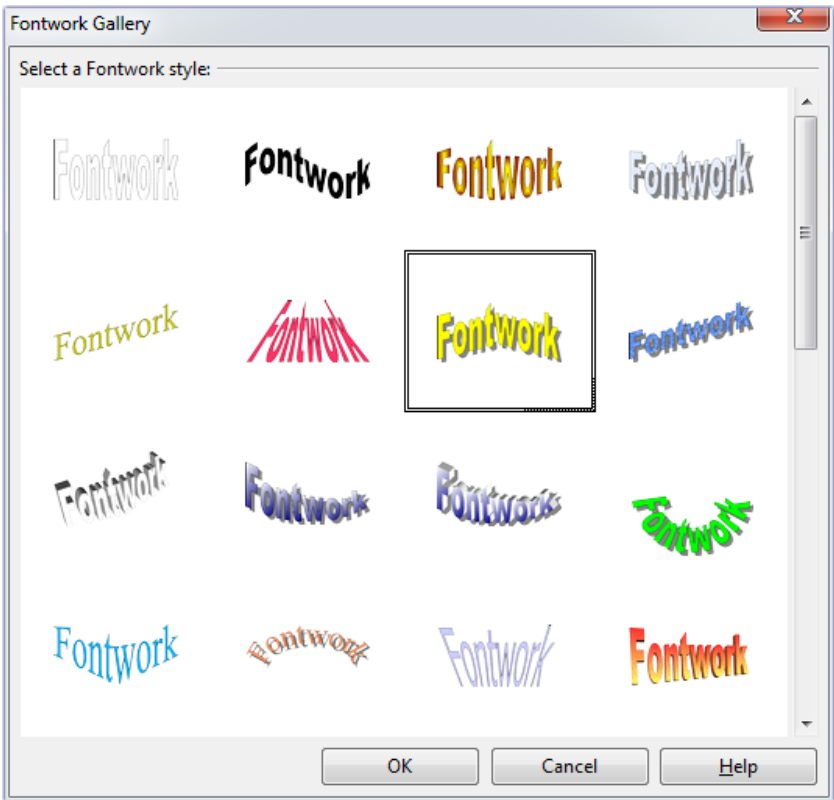


Fig. 31 Fontwork Gallery dialog box

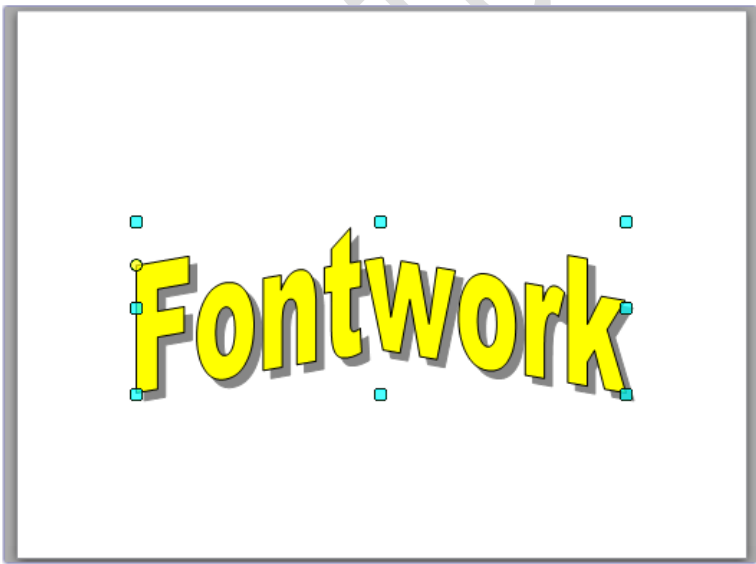


Fig. 32 Fontwork design on the slide



Fig. 33 Editing Fontwork text

6. Change the text and then click anywhere in the document. (**Fig 34**)
7. Using the **Fontwork** bar (**Fig. 35**), you can change the style of the text, letter height, etc.



Fig 34 text on the Slide

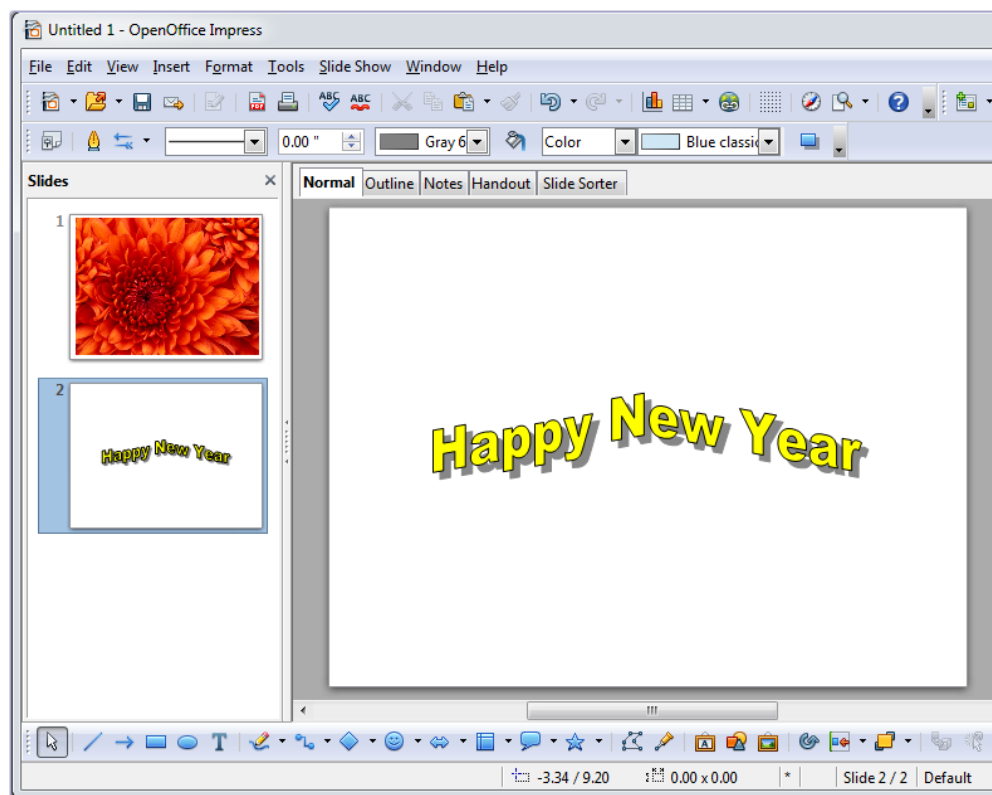


Fig. 35 Fontwork bar

INSERTING SHAPES

You can insert basic pre-defined shapes a slide. The steps to add the shapes are:

1. Click the arrow next to the **Symbol Shapes** option (**Fig. 36**) on the **Drawing** bar.
2. Select the desired shape.
3. Click and drag on the slide to draw the shape.
4. Similarly, you can use the options available on the **Drawing** bar to draw many other shapes, arrows, callouts, etc. (**Fig 37**)

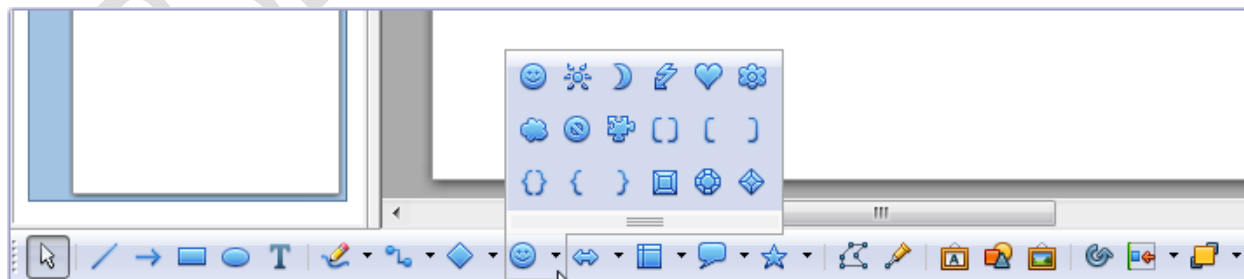


Fig 36 Symbols option on Drawing bar

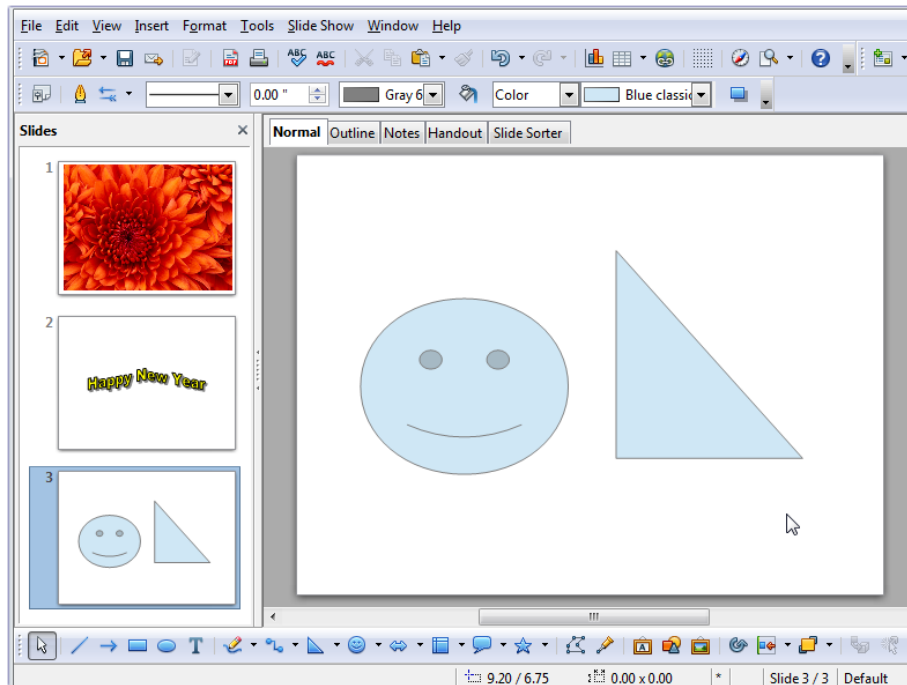


Fig 37 Shapes drawn on a slide

Editing Shapes

The inserted shapes can be edited using the **Line and Filling** bar. This bar appears when you select a shape. The various options of the toolbar are shown in **Figure 38**.

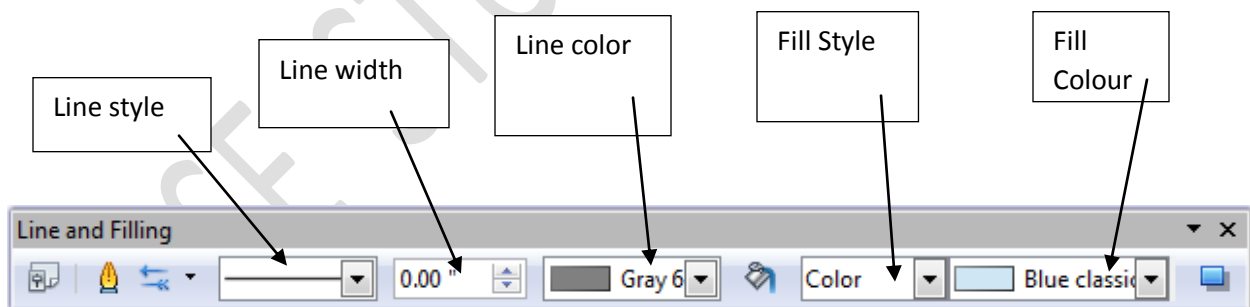


Fig. 38 Line and Filling bar

Lets Try It

1. Create a new presentation of 4-5 slides on the topic 'Activities in My School'.

- a. Use Fontwork gallery to write the headings.
 - b. Choose suitable font, size and color for the text.
 - c. Apply suitable background to the slides.
 - d. Insert suitable pictures in each slide.
2. Create a new blank presentation for children of Primary level to teach them about different shapes.
 - a. Use FontWork to write the headings.
 - b. Choose suitable font, font style, size and color for the text.
 - c. Apply suitable background to the slides.
 - d. Insert different shapes from the Drawing bar.
 - e. Edit these shapes to change their fill and line styles and color.
 - f. View the presentation in the following views
 - i. Normal view
 - ii. Slide Sorter view
 - g. Change the order of slides in the Slide Sorter view.

Worksheet

1. How can you perform the following actions in Slide Sorter view?
 - a. Select consecutive multiple slides
 - b. Select non-consecutive multiple slides
 - c. Delete slides
2. Name the view used to see all the slides in a miniature form.
3. Name the bar that has option to insert basic shapes.
4. Name the two ways in which you can insert pictures in a slide.

Session 3

INSERTING SOUND OR MOVIES

You can add sound and video files in a presentation created in Impress. The steps are:

1. Select the slide.
2. Select **Movie and Sound option** from the **Insert menu**. (Fig 39)
3. The **Insert Movie and Sound** dialog box will appear (Fig. 40).
4. Select the desired sound/movie file and click **Open**.

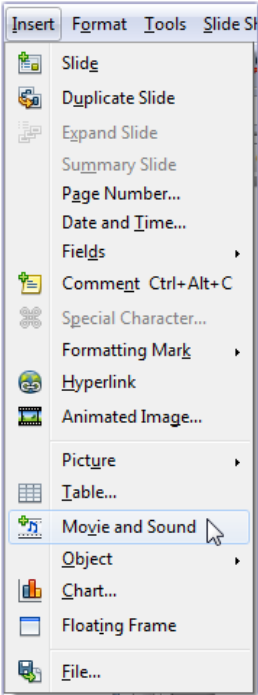


Fig 39 Movie and Sound option of Insert menu

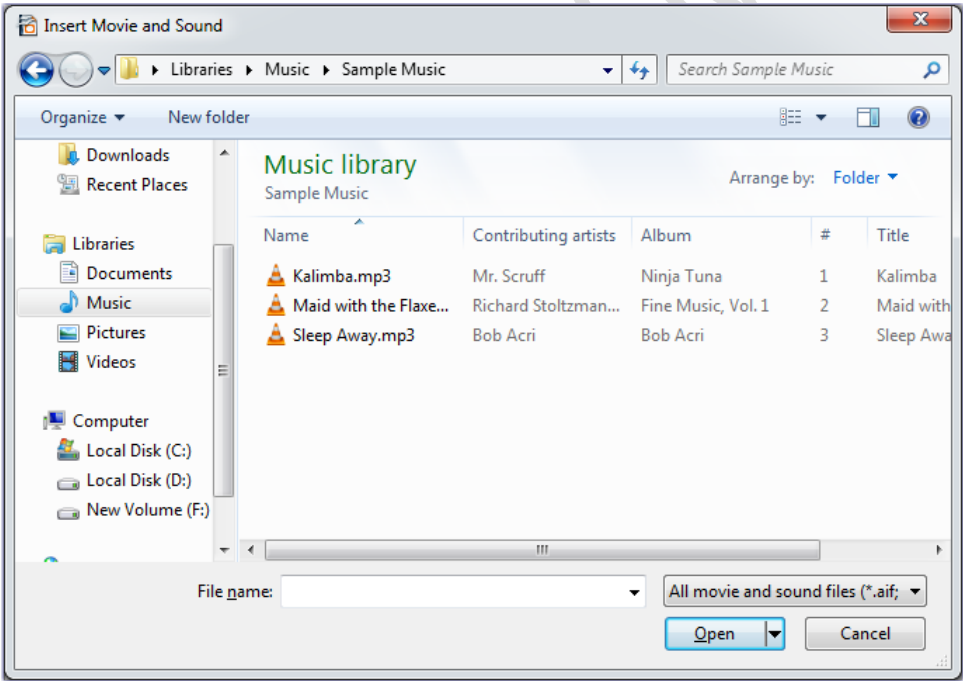
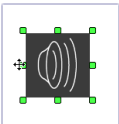


Fig. 40 Insert Movie and Sound dialog box



- 3. If you insert a sound file, the sound () icon appears on the slide.
- 4. If you insert a movie file, the movie appears on the slide.

SLIDE TRANSITION

The steps to apply transition effects to a slide are:

1. Select the slide.
2. Select **Slide Transition** option from the **Slide Show** menu. (Fig 41)

Or

Click the **Slide Transition** tab in the **Task** pane.

3. The **Slide Transition** panel will appear in the **Task** pane (42).
4. The steps to apply transition are:
 - a. Select a slide transition effect
 - b. Select the speed of transition
 - c. Select sound
 - d. Select a method to move to the next slide.
 - e. Select **Automatic Preview** to see the preview of the current slide.
 - f. Click **Apply to all slides** to apply transition to all slides

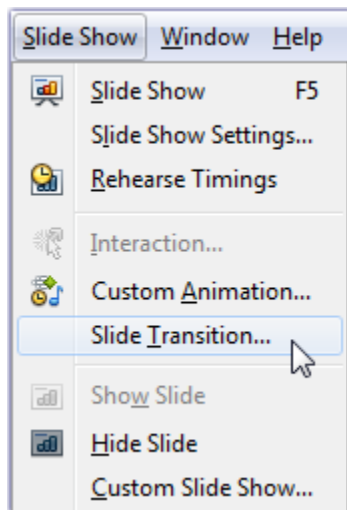


Fig 41 Slide Show menu

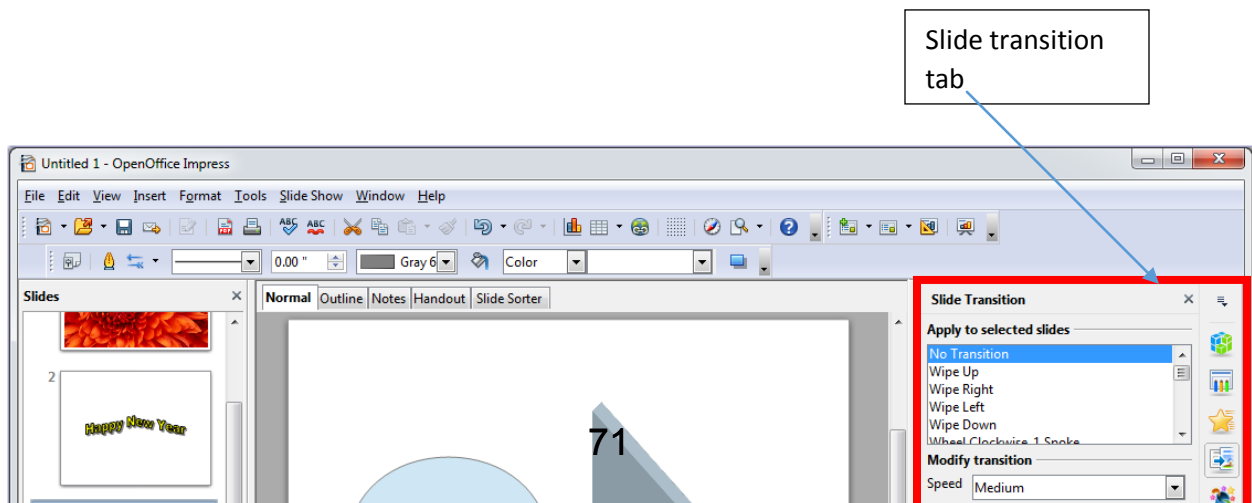


Fig 42 Slide transition tab

CUSTOM ANIMATION EFFECTS

The steps to apply custom animation effects to an object are:

1. Select the slide.
2. Select the object to which you want to apply custom animation.
3. Select **Custom Animation** option from **Slide Show** menu (**Fig 41**).
4. The **Custom Animation** panel appears in the **Task** pane (**Fig. 43**).

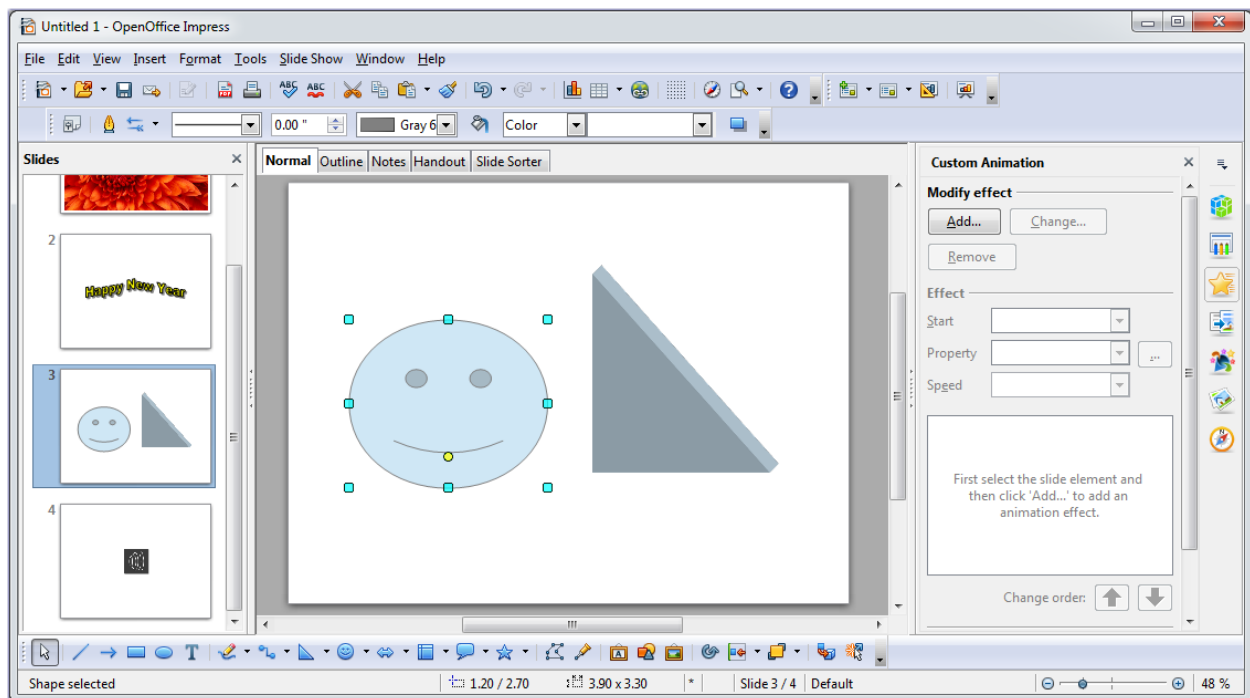


Fig. 43 Custom Animation panel

3. Click the **Add** button under **Modify effect**.

4. The **Custom Animation** dialog box appears with the **Entrance** tab selected (**Fig. 44**). Choose the desired effect and adjust the speed.

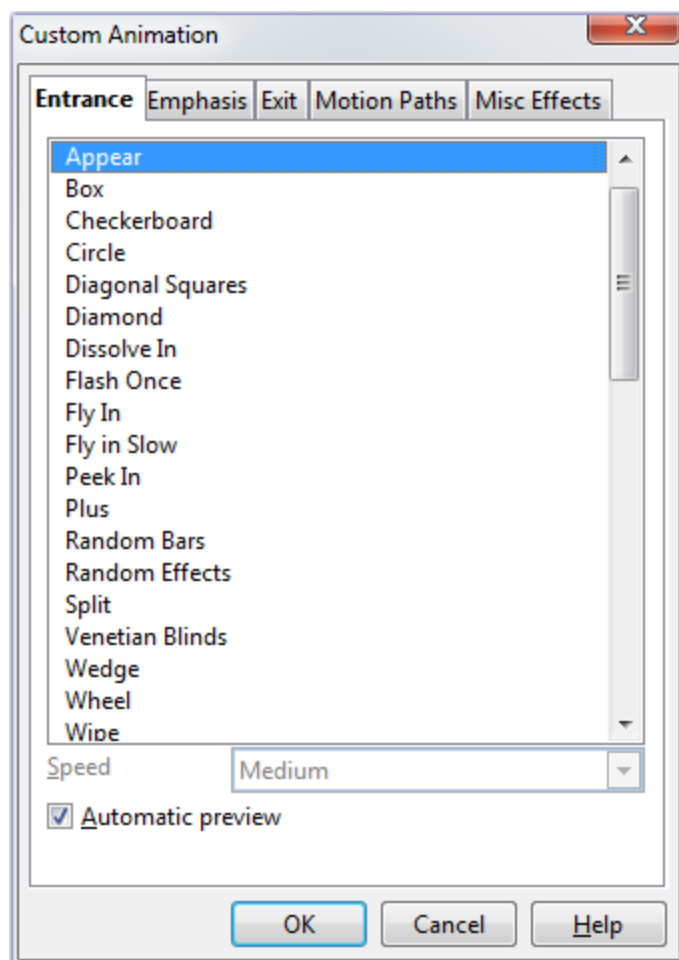


Fig 44 Custom Animation dialog box

The other tabs of this dialog box and their options are as follows:

Emphasis tab This tab allows you to highlight the object on the slide.

Exit The options under this tab allow you to select how the object will leave the slide.

Motion Paths This tab helps you to select the motion path that the object will follow on the slide.

Misc Effects This tab has the commands to control a media file, i.e., an audio or a video file. You can select options for starting, pausing, or stopping the video or sound file.

5. Click **OK**.

6. Repeat the above steps for other objects on the slides.

Changing the Order of Animation

The steps to change the order of animations are as follows:

1. In the **Custom Animation** panel, select the animation whose order you want to change.



2. Use the **Change Order** buttons to move the animation up or down.

Removing Animation Effects

The steps to remove an animation are as follows:

1. In the **Custom Animation** panel, click the animation effect you want to remove.
2. Click the **Remove** button

SLIDE SHOW

The **Slide Show** view is used to display a presentation slide-by-slide in full screen mode.

You can run a slide show in any one of the following ways:

- Press **F5**.
- Click the **Slide Show** button on the **Standard** bar.
- Click the **View** button and then click **Slide Show** in the drop-down menu.
- Click the **Slide Show** button and then click **Slide Show** in the drop-down menu.

During a slide show, you can move to the next slide in the following ways:

- Click the mouse button.

Or

- Press **ENTER** or the spacebar.

PRINTING A PRESENTATION

The steps to print a presentation are as follows:

1. Select **Print** option from the **File** menu (**Fig 45**).
2. The **Print** dialog box appears. (**Fig 46**)
 - a. Select a printer.
 - b. Select number of copies to be printed.
 - c. Select the slides to be printed.
 - d. Click the **Print** button.

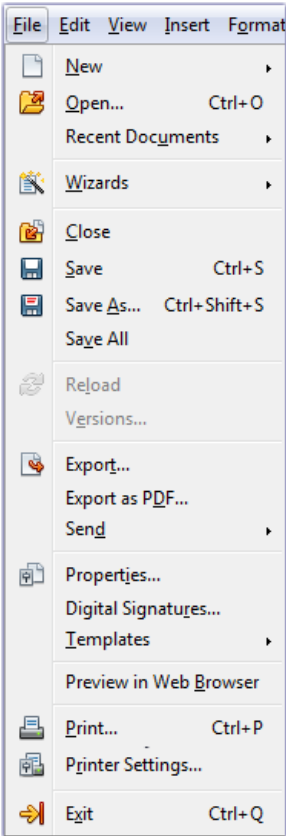


Fig 45 File menu

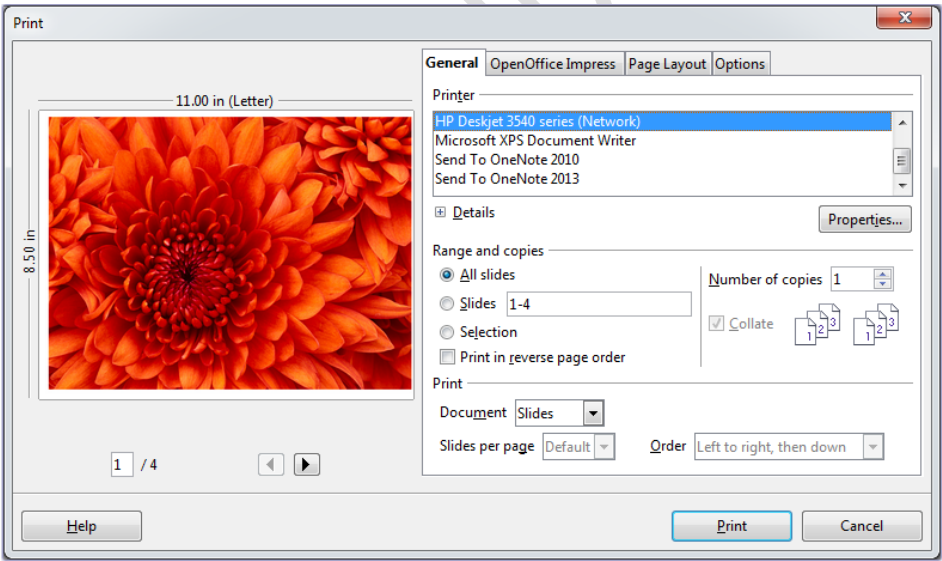


Fig. 46 Print dialog box

Lets Try IT

1. Create a presentation of 7-8 slides on the topic 'Natural Resources'
 - a. Choose suitable font, size and color for the text.
 - b. Write headings using FontWork.
 - c. Insert suitable pictures in each slide
 - d. Insert a video related to the topic in the last slide.
 - e. Apply custom animation to the objects on the slide.
 - f. Apply Slide transition to the slides.
 - g. Print the handouts of the slides.

Worksheet

1. Custom animation is applied to the _____.
2. Slide transition is applied to the _____.
3. How can you insert an audio in a slide?

4. Name the menu and the option used to print slides of a presentation.

5. Mention any two ways to run a slide show.

Unit 1 Spreadsheet Software

Session 1 Introduction to Spreadsheet software

OpenOffice Calc is a spreadsheet program, a part of the free OpenOffice suite. The program is easy to use and contains most of the commonly used features found in commercial spreadsheet programs.

OpenOffice Calc is software that helps in performing calculations using formulae and in analysing data.

ADVANTAGES OF SPREADSHEETS

Spreadsheet programs have become very popular because of the following features:

- Built-in functions make calculations easier, faster, and more accurate.
- Large volumes of data can be easily handled and manipulated.
- Data can be exported to or imported from other software.
- Data can be easily represented in pictorial form like graphs or charts.
- Formulae are automatically recalculated whenever underlying data values are changed.

STARTING OpenOffice Calc

To start OpenOffice Calc:

1. Click **Start** ➤ **All Programs** ➤ **OpenOffice 4.1.5** ➤ **OpenOffice Calc**. (Fig 1)
2. A spreadsheet workbook named Untitled1 opens up in an OpenOffice Calc application window (**Fig. 2**).

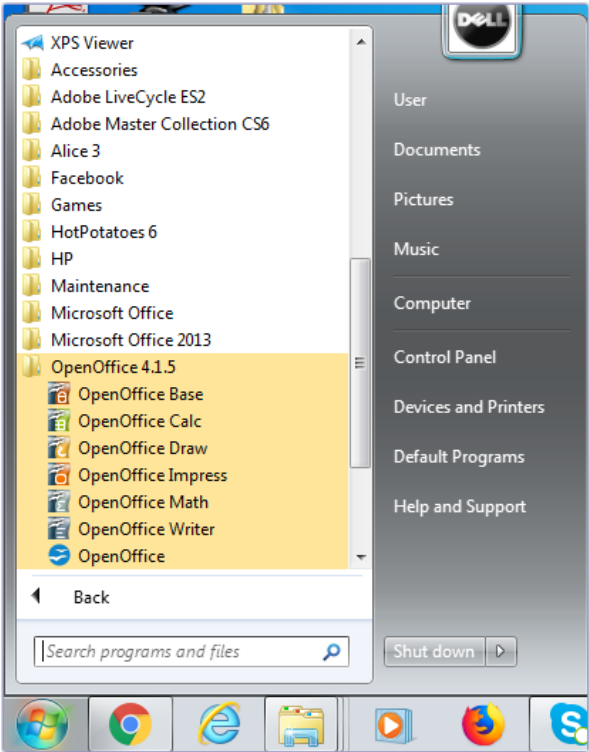
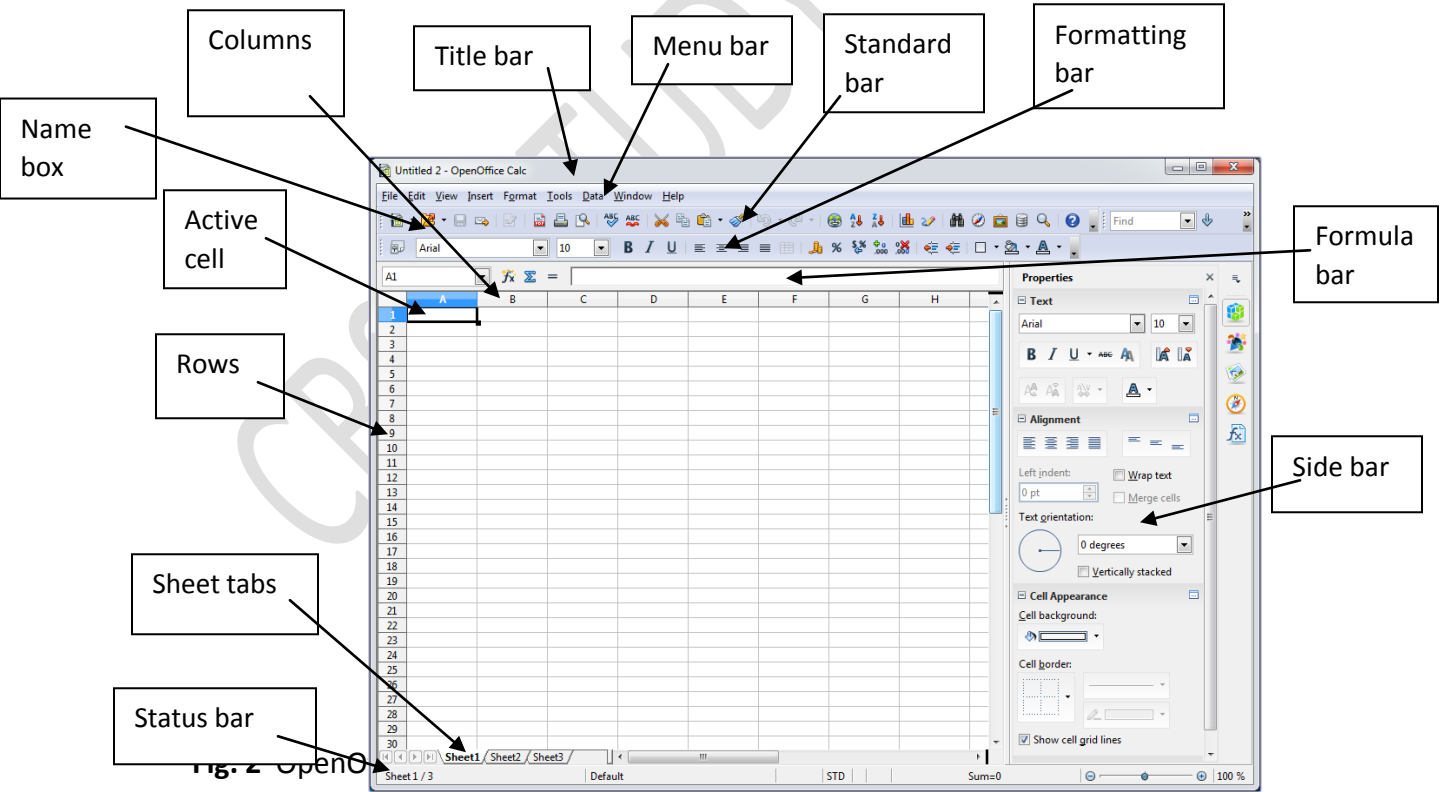


Fig 1 Starting OpenOffice Calc



Components of a Calc Screen

Title bar The title bar is located at the top of the Calc window. It displays the name of the workbook on which you are currently working. A workbook is a collection of one or more worksheets. The right side of the title bar contains the **Minimize**, **Restore Down** or **Maximize**, and **Close** buttons.

Menu bar The menu bar has commands like File , Edit, etc. Clicking on each menu option displays a list of commands.

Standard bar This bar contains icons (buttons) to provide quick access to commands such as **New**, **Open**, **Print**, **Copy**, and **Paste** etc.

Formatting bar It has buttons and drop-down menus that allow you to select a formatting option like, font, font color, alignment, number format, border, and background color.

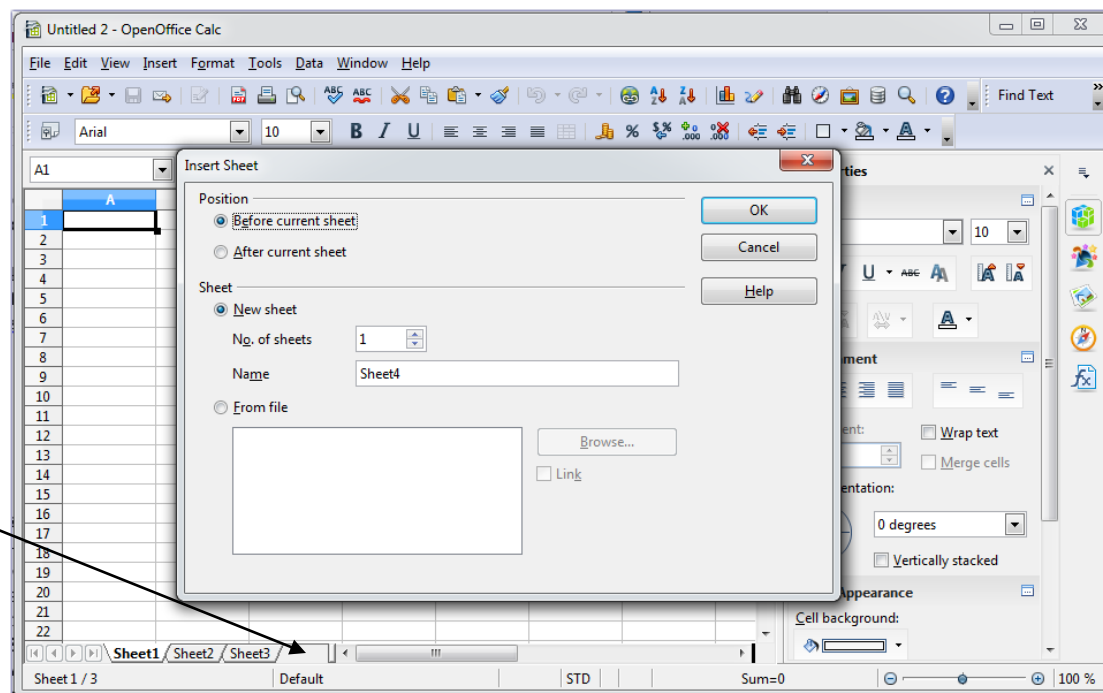
Formula bar It contains the **Name Box** and a long white box, known as the **Input line**.

Name Box It is present to the left of the Formula bar and displays the address of the selected cell.

The rest of the window contains the spreadsheet. It is divided into rows that have a number at the left of each row, and columns with a letter at the top of each column.

Worksheet tabs A workbook, by default, opens three worksheets named as **Sheet1**, **Sheet2**, and **Sheet3**. You can click any sheet tab to open that worksheet. To insert a new worksheet, the steps are:

1. Clicking the empty area after the sheet tab.
2. The **Insert Sheet** dialog box appears. (**Fig 3**)
3. Select the required option and click **OK**



(Fig. 3). Fig 3 Inserting a new sheet

Rows and columns A worksheet in OpenOffice 4.1.5 Calc has 1,048,576 rows and 1,024 columns. The rows are numbered from top to bottom along the left edge of the worksheet as 1, 2, and so on.

Columns are labelled from left to right with letters A...Z, AA...AZ, A...BZ...AAA...AAZ, ABA...ABZ...AMA...AMJ.

Cell A cell is formed by the intersection of a row and a column. Each cell has a unique address which is formed by the intersection of row number and column letter. For example, a cell formed by intersection of column F and row 5 will have address F5.

Data Types

You can enter numbers, text, and formulas in a cell.

Entering data

To enter data in a cell,

1. Select the cell.
2. Type the content.
3. Press ENTER key.

To cancel the data you have entered before pressing the ENTER key, press the ESC key.

Creating a New Workbook

The steps to create a new Calc workbook are:

1. Select **File** ➤ **New** ➤ **Spreadsheet (Fig. 4)**.

Or

Click the **New Document** drop-down menu arrow on the **Standard** bar and select **Spreadsheet**. (Fig 5)

Or

Press **CTRL + N**.

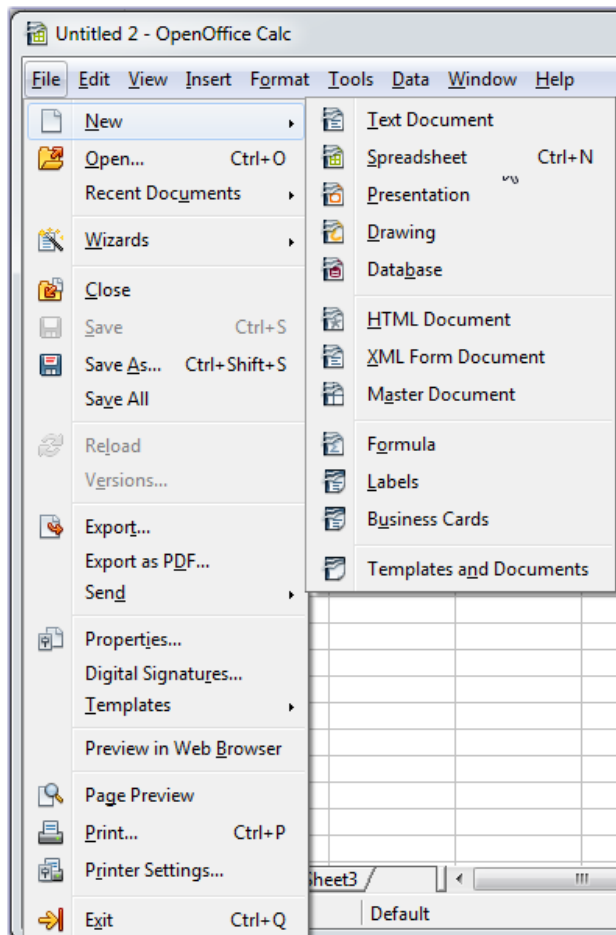
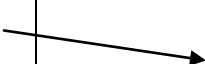


Fig. 4 New option in the **File** menu

New button on
Standard bar



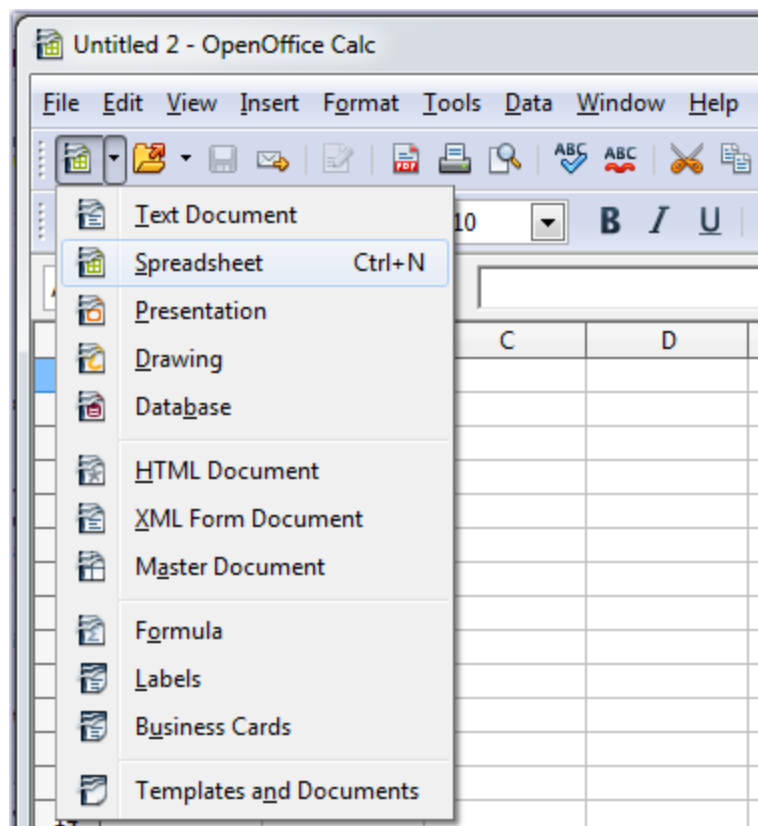


Fig 5 New button on Standard bar

Saving a Workbook

To save a workbook:

1. Select **Save** option from **File** menu.

Or

Click the **Save** icon on the **Standard** bar.

Or

Press CTRL + S.

If you are saving a workbook for the first time, a **Save As** dialog box will appear (**Fig. 6**).

2. Type a file name and choose a location to save the file. Notice that the file extension is *.ods*.

3. If you want to save the file in the Microsoft Excel file format, change the **Save as type** to Microsoft Excel 97/2000/XP (.xls). (**Fig 7**)

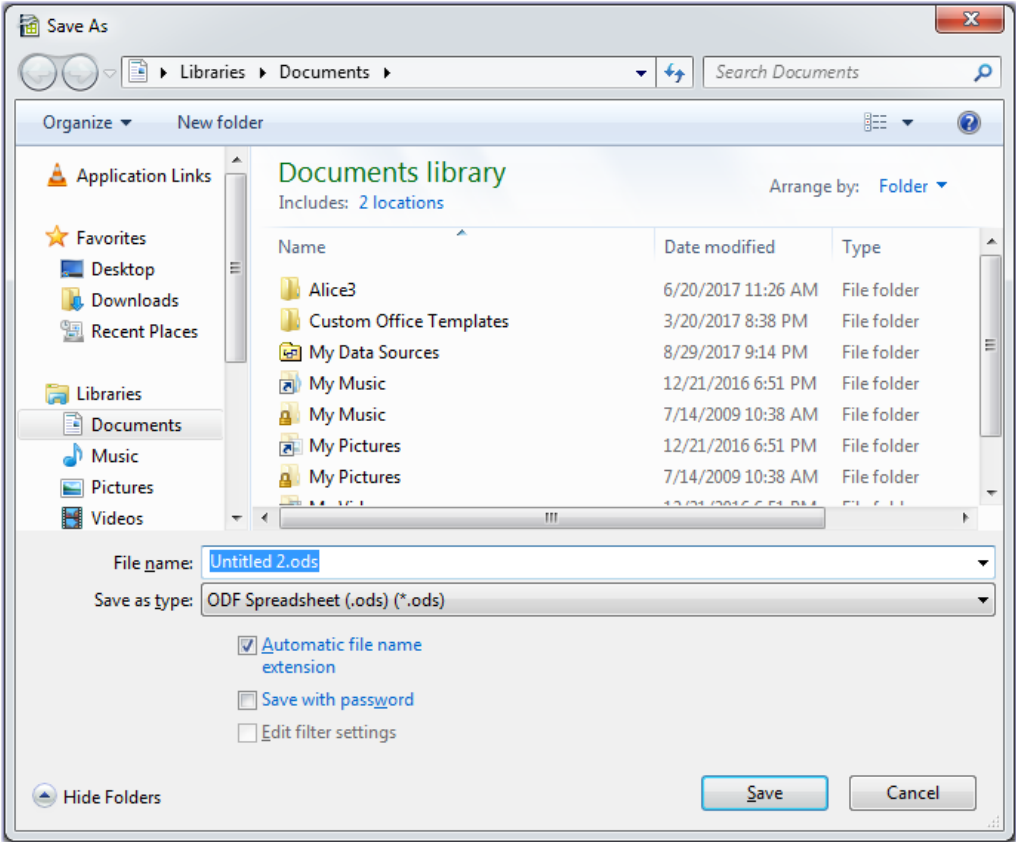


Fig. 6 Save As dialog box

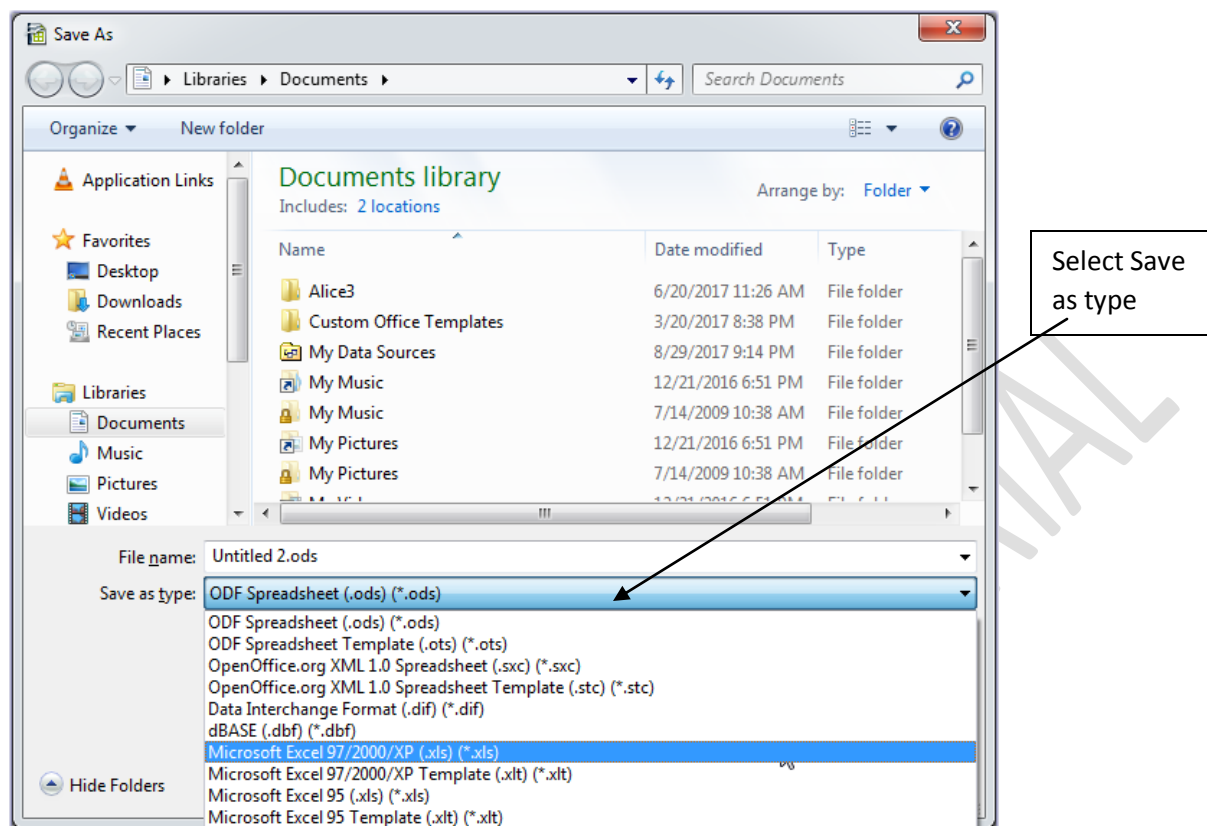


Fig. 7 Save As dialog box

SELECTING CELLS

Before performing any operation, like, making text bold, changing text color, etc, on a range of cells, you need to select the range.

A range is a rectangular block of contiguous cells, i.e., cells that touch each other, especially along a line.

You can select range of cells in any one of the following ways:

- Using the mouse
- Using the keyboard

Using the mouse

To select a range of cells using the mouse, the steps are:

1. Click the cell you wish to start your selection from.
2. Bring the mouse pointer to the bottom right corner on the black square. Click and hold the left mouse button down, drag the mouse pointer (a thick plus sign will appear) to the diagonally opposite corner cell.

For example, if the range A1 to D3 is to be selected, place the mouse pointer at cell A1. Hold the left mouse button down and drag it to the cell D3. The range A1 to D3 is represented as A1:D3.

When you select the range, all the cells appear highlighted (**Fig. 8**).

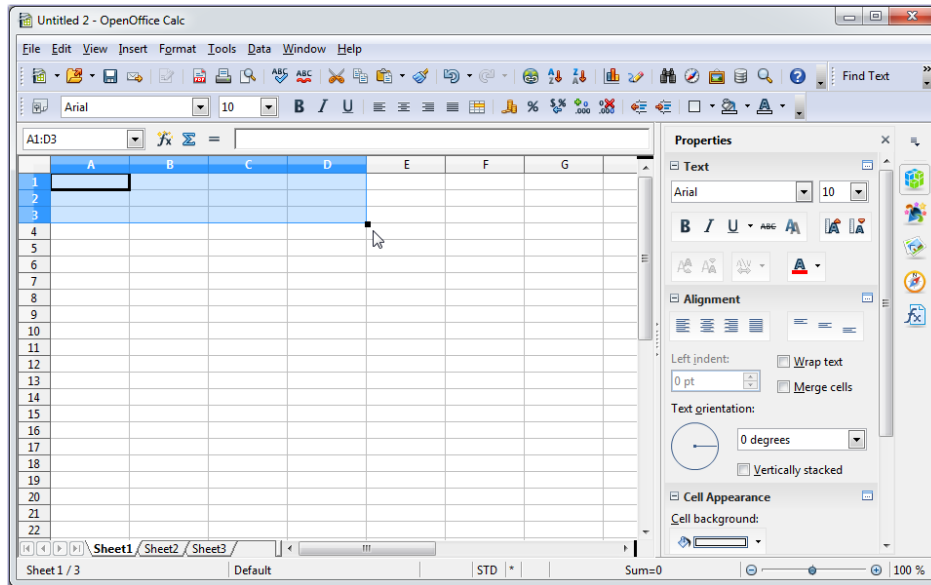


Fig 8 Selecting range using mouse

Using the Keyboard

To select a range of cells using the keyboard, do the following:

1. Place the cell pointer at one of the corner cells of the range to be selected.
2. Press the SHIFT key and move to the diagonally opposite corner cell using the arrow keys.
3. Release the SHIFT key when the required range has been selected.

Selecting Multiple Ranges Simultaneously

To select multiple ranges, do the following:

1. Select the first range of cells.
2. Hold the **CTRL** key and select another range of cells.
3. Repeat step 2 to select more ranges if required (**Fig. 9**).

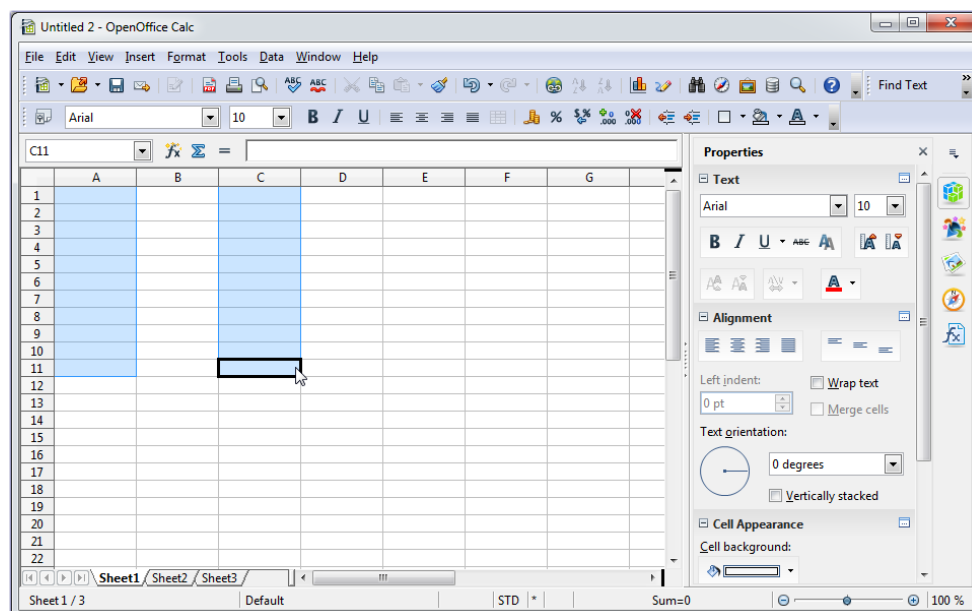


Fig 9 selecting multiple range of cells

Selecting the entire row

To select the entire row in which the cell pointer is positioned, do any one of the following:

SHIFT + SPACEBAR

Or

click the row heading.

Selecting the entire column

To select the entire column in which the cell pointer is positioned, do any one of the following:

CTRL + SPACEBAR

Or,

click the column heading.

Selecting the entire worksheet

To select the entire worksheet:

CTRL + A

Or,

Click the blank button (called the *Select All* button) at the junction of the row and column headers. **(Fig 10)**

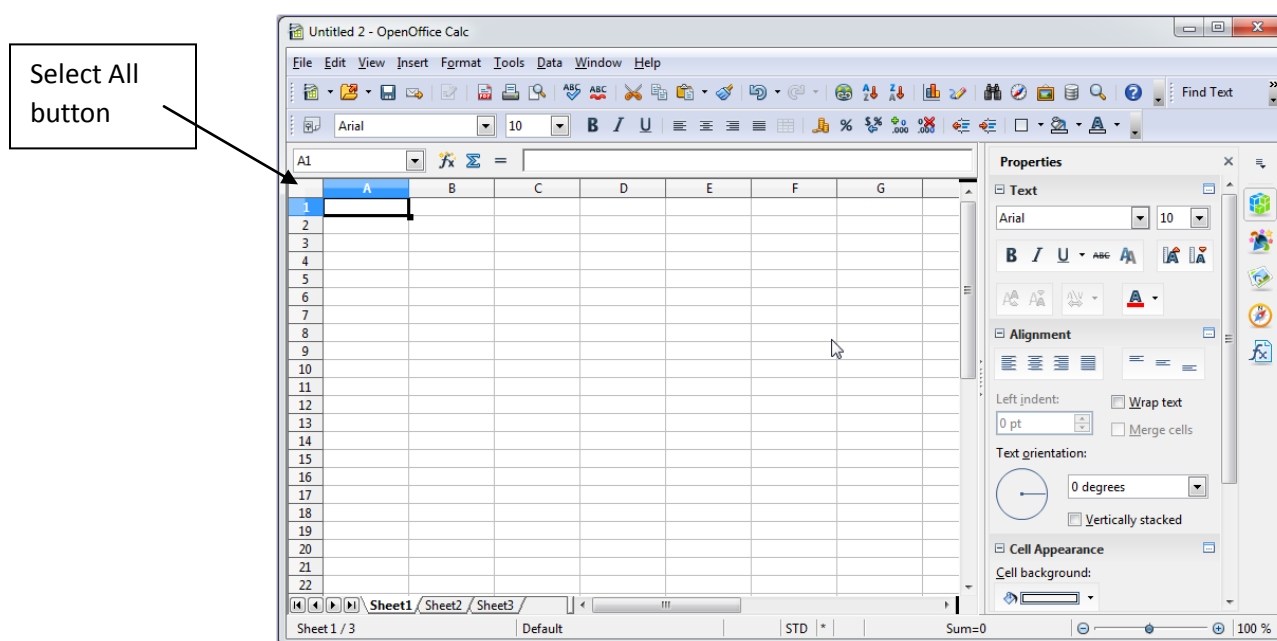


Fig 10 Select All button

EDIT COMMANDS

After typing in a cell, you may need to change the entire content or do some partial modifications. This can be done in any one of the following ways:

- By overtyping, i.e., changing the content completely
- By partially modifying the content

Overtyping

To edit a cell by overtyping:

1. Select the cell.
2. Type the new content.
3. Press ENTER key.

Partial Modification

If some minor modification is required in a cell content:

1. Select the cell.
2. Click the **Formula bar**.
OR
Press **F2**
Or

Double-click in the cell.

3. Now, edit the content in the formula bar or in the cell.
4. Press the ENTER key or click Enter button on the Formula bar.

Undo and Redo

The undo command allows you to reverse the last action you have performed. To undo the last action, you can do any one of the following:

Click the **Undo** button on the **Standard** bar. (Fig 11)

Or

Select **Undo** option from the **Edit** menu.(Fig 12).

Or

Press **CTRL + Z**.

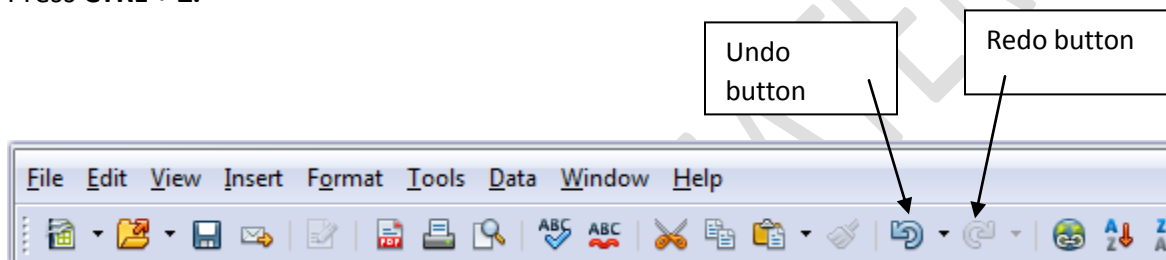


Fig 11 Undo button on Standard bar

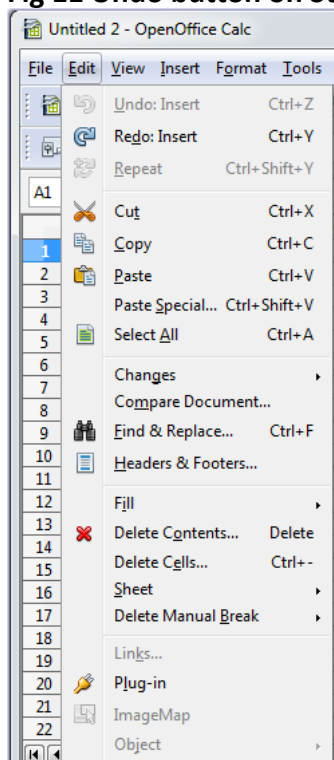


Fig 12 Undo option of Edit menu

The redo command is activated only after you have undone an action.
To redo an action that you undid, you can do one of the following:

Click the **Redo** button on the **Standard** bar.

Or

Click the **Edit** button and then click **Redo** in the drop-down menu.

Or

Press CTRL + Y.

Copying Cell Contents

To copy cell contents in Calc, the steps are:

1. Select the cell(s) that contain(s) the data you want to copy.

2. Select **Copy option** from the **Edit** menu. (Fig 13)

Or

Click the **Copy** button on the **Standard** bar. (Fig 14)

Or

Press **CTRL + C** to copy the data.

3. Click on the cell(s) where you want to paste the data.

4. Select Paste option from the Edit menu.

Or

Click the **Paste** button on the **Standard** bar.

Or

Press CTRL + V.

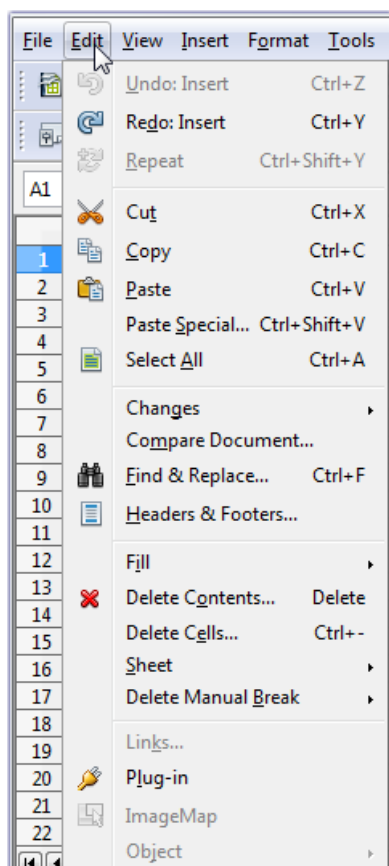


Fig 13 Copy option of Edit menu

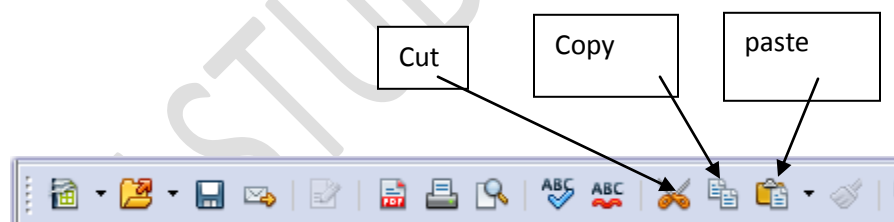


Fig 14 Standard bar

Moving Cell Contents

To move cell contents from one cell to another in Calc, the steps are:

1. Select the cell that contains the data you want to cut.
2. Select **Cut** option from the **Edit** menu.

Or

Click the **Cut** button on the **Standard** bar.

Or

Press CTRL + X to cut the data.

3. Click on the cell where you want to paste the data.

4. Select Paste option from the Edit menu.

Or

Click the **Paste** button on the **Standard** bar.

Or

Press CTRL + V.

Inserting Cells

To insert cells, the steps are:

1. Select the range of cells where you want to insert a block of cells.
2. Select **Cells** option from the **Insert** menu.(Fig 15)
3. The **Insert Cells** dialog box appears (Fig. 16).
4. Select the appropriate option and click **OK**.

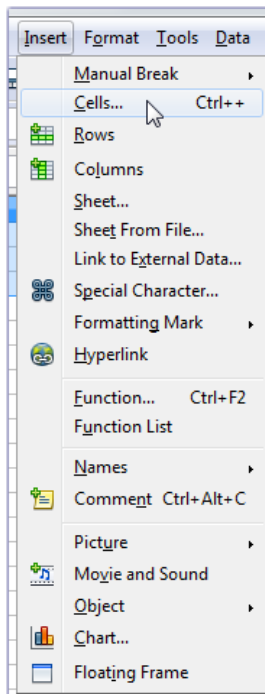


Fig 15 Cells option of Insert menu

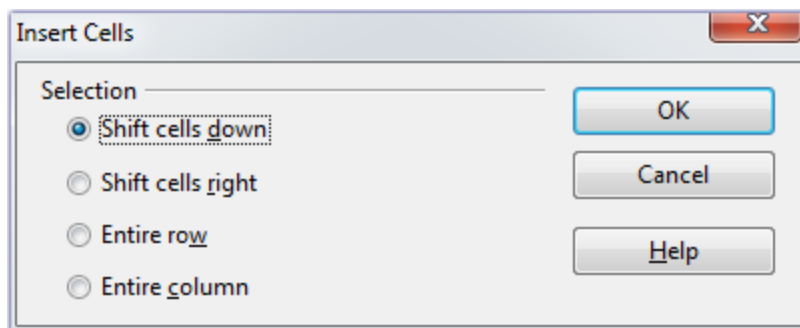


Fig. 16 Insert Cells dialog box

Deleting Cells

To delete cells, the steps are:

1. Select the range of cells where you want to delete a block of cells.
2. Select **Delete Cells** option from the **Edit** menu. (Fig 17)
3. The **Delete Cells** dialog box appears (Fig. 18).
4. Select the appropriate option and click **OK**.

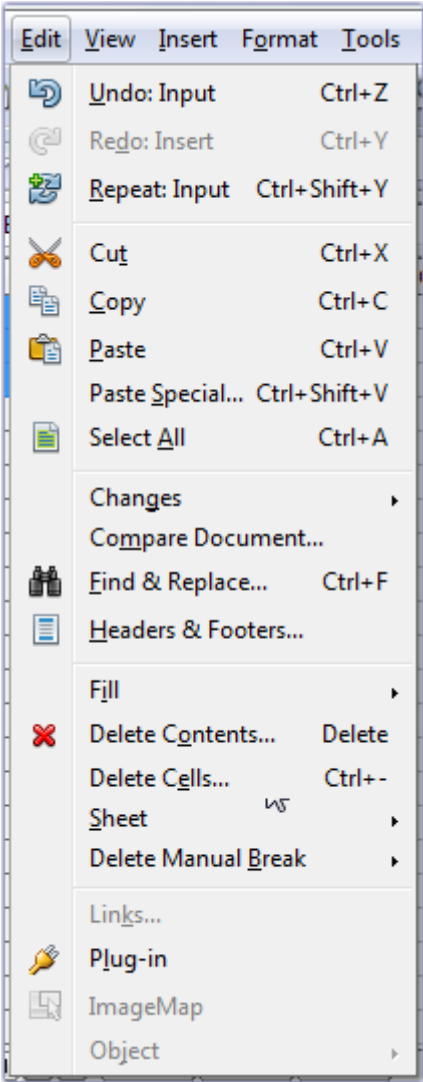


Fig 17 Delete Cells option of Edit menu

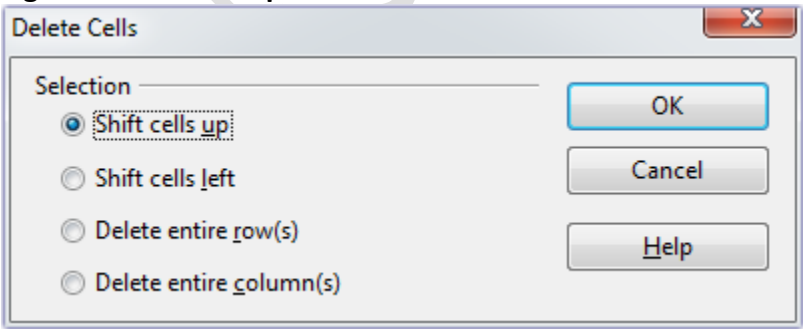


Fig. 18 Delete Cells dialog box

Inserting Rows

The steps to insert rows are:

1. Select the row where you want to insert a new row.
2. Select **Rows** option from the **Insert** menu.

Or

Right-click the row header and select **Insert Rows** in the shortcut menu. (Fig 19)

A new row is inserted above the selected/highlighted row. Cells in the new row are formatted similar to the corresponding cells in the row before which the new row is inserted.

Multiple rows can be inserted at once by selecting multiple rows using the CTRL key or by dragging the mouse while holding down the left mouse button.

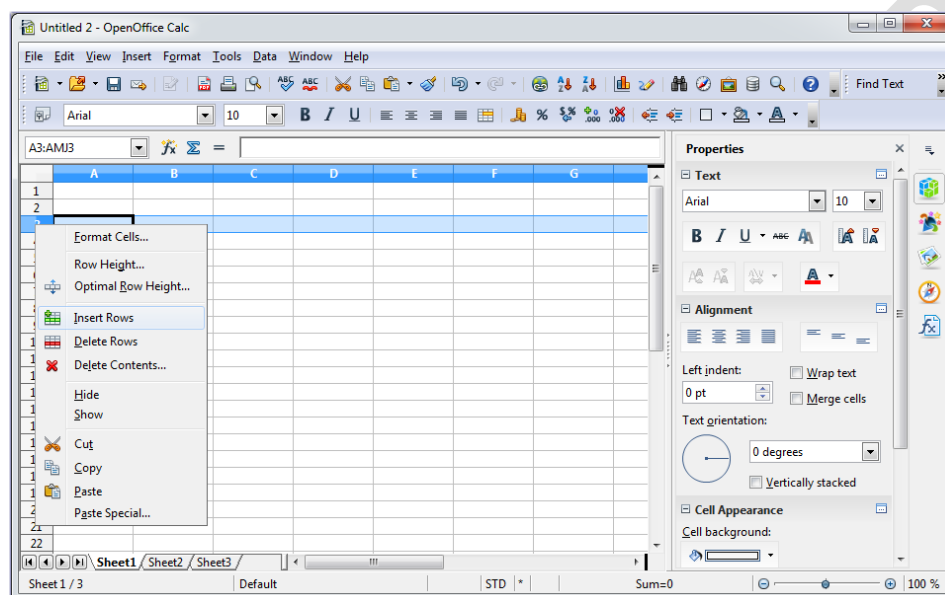


Fig 19 Insert Rows option in Shortcut

Inserting Columns

To insert columns, the steps are:

1. Select the column where you want to insert a new column.
2. Select Columns option from the Insert menu.

Or

Right-click the column header and select **Insert Columns** in the shortcut menu. (Fig 20)

When you insert a new column, it is inserted to the left of the selected/highlighted column. Cells in the new column are formatted similar to the corresponding cells in the column to the left of which the new column or row is inserted.

Multiple columns can be inserted at once by selecting multiple columns using the CTRL key or by dragging the mouse while holding down the left mouse button.

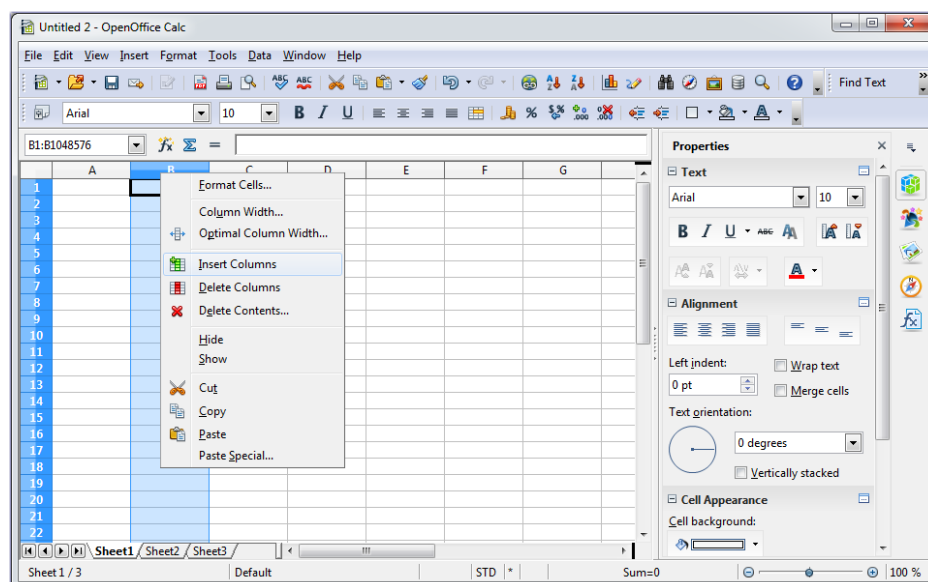


Fig 20 Insert Columns option

Deleting Rows

To delete rows, the steps are:

1. Select the row to be deleted.
2. Right-click on the selected column header.
3. Select **Delete Rows option** in the shortcut menu. (Fig 19)

To delete multiple rows, select them using the CTRL key, or by dragging the mouse while holding the left mouse button.

Deleting Columns

To delete columns, the steps are:

1. Select the column to be deleted.
2. Right-click on the selected column header.
3. Select **Delete Columns** in the shortcut menu.

To delete multiple columns, select them using the CTRL key, or by dragging the mouse while holding the left mouse button.

Instead of deleting a row or column, you may want to delete the contents of the cells but keep the empty row or column. This can be done in the following manner:

1. Select the cell(s), the contents of which you want to delete.
2. Press the DELETE key.

Or

Select **Delete Contents** option of **Edit** menu.

3. The **Delete Contents** dialog box appears (Fig. 21).

3. Check the boxes of the kind of data you want to delete (e.g., checking **Formats** will remove the formatting changes such as bold, italics, font colors, and borders).
4. Click **OK**.

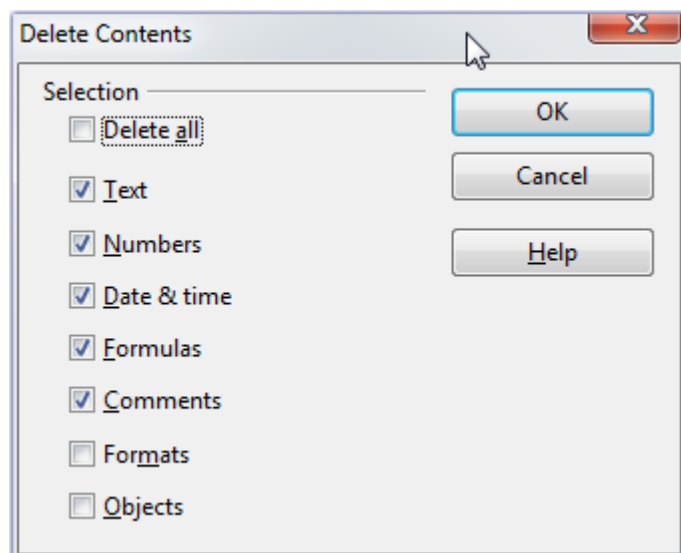


Fig. 21 Delete Contents dialog box

Changing Row Height You can change the row height in a Calc worksheet in any of the following ways:

- Drag the divider below the row (**Fig 22**).
- To fit the row height to the cell contents, double-click the divider.
- Select **Format > Row > Height (Fig 23)**. The **Row Height** dialog box appears (**Fig. 24**). Enter the value for row height in the **Height** spinbox.

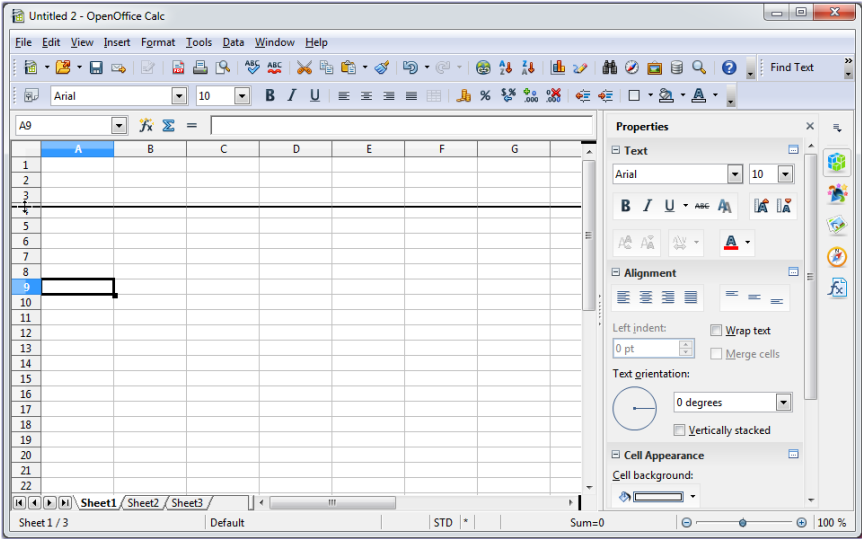


Fig 22 Changing row height

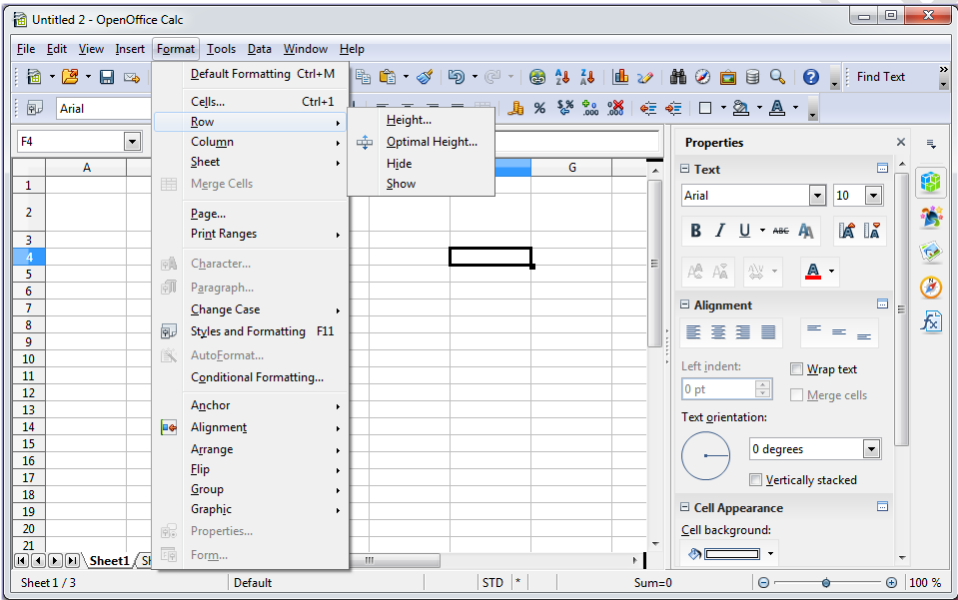


Fig 23 Format menu

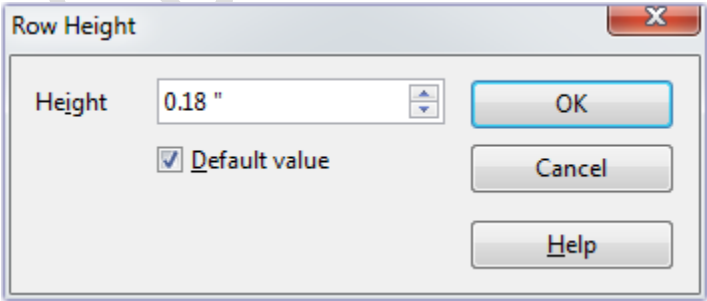


Fig. 24 Row Height dialog box

Changing Column Width

You can change the column width in a Calc worksheet in any of the following ways:

- Drag the divider to the right of the column header (**Fig 25**).
- To fit the column width to the cell contents, double-click the divider.
- To change the column width, select **Format** ➤ **Column** ➤ **Width**. (**Fig 26**) The **Column Width** dialog box appears (**Fig. 27**). Enter the value for column width in the **Width** spinbox.

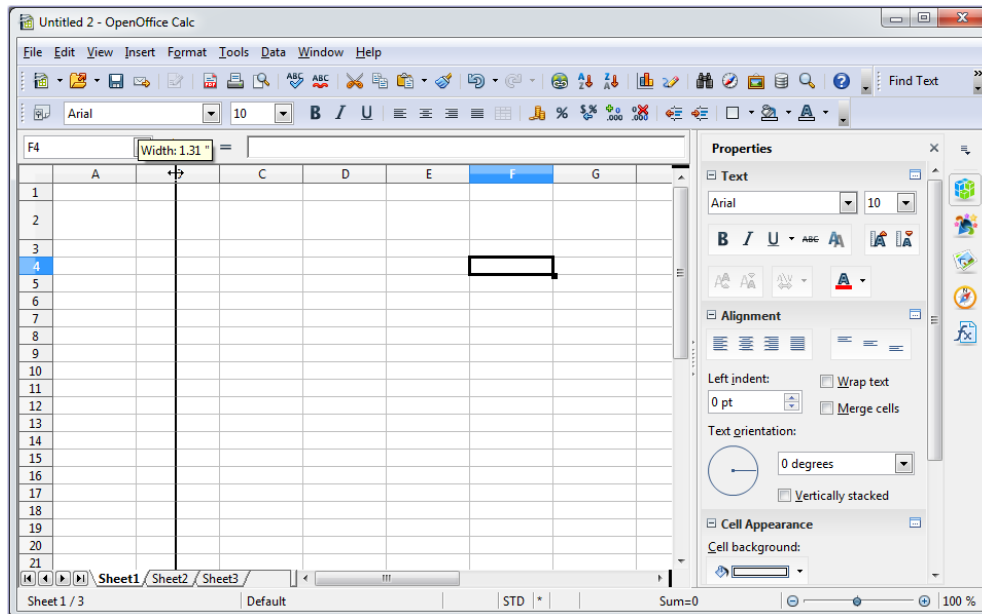


Fig 25 Changing column width

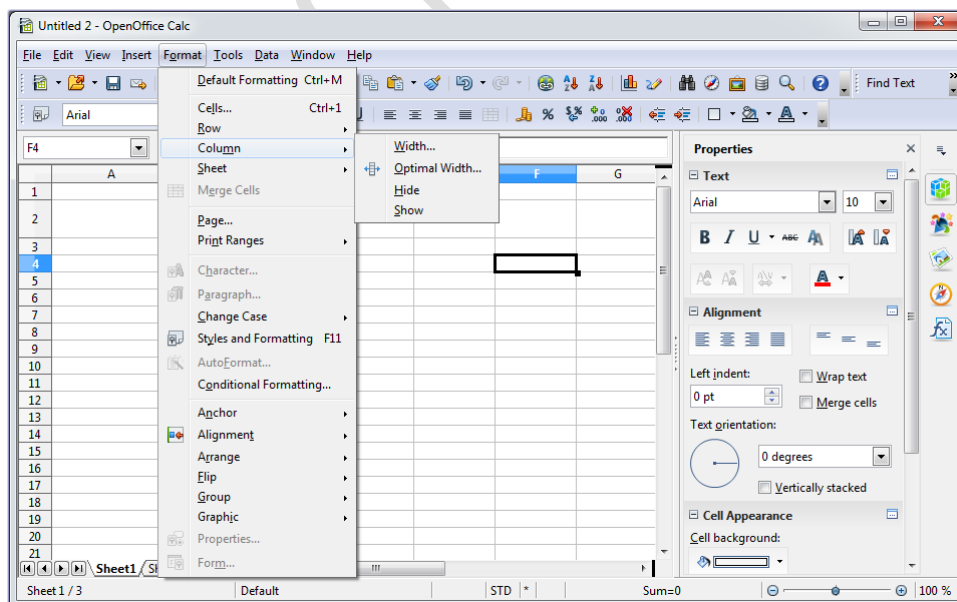


Fig 26 Format menu

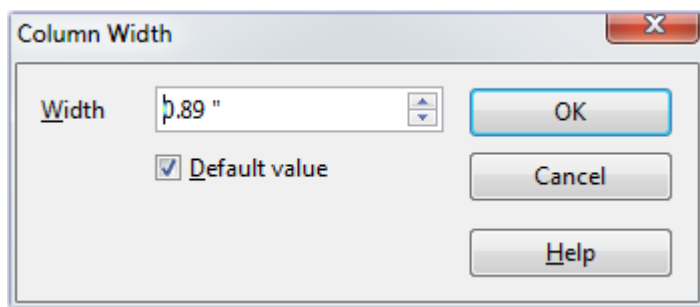


Fig. 27 Column width dialog box

Selecting the **Default value** checkbox automatically adjusts the row height or column width based on the current font.

FORMATTING DATA

The options for formatting data/text are available on the **Formatting bar (Fig 28)**. The use of each of the options is explained below the figure.

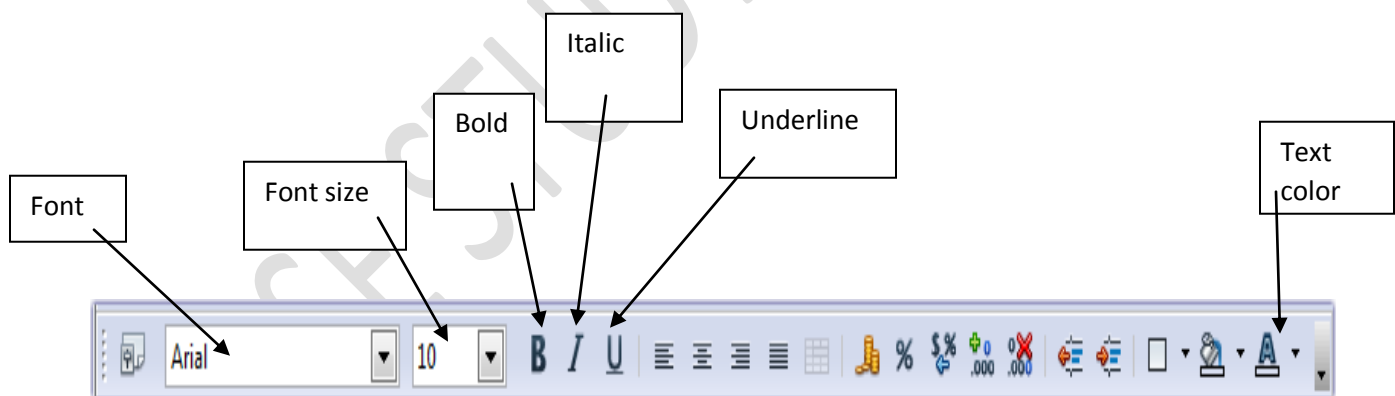


Fig. 28 Formatting bar

Font formatting options can also be accessed by selecting **Format > Cells**. The **Format Cells** dialog box appears. (Fig 29) It has seven tabs with various options for font formatting.

- a. Click the **Numbers** tab (Fig 29). You can select the desired Number format.

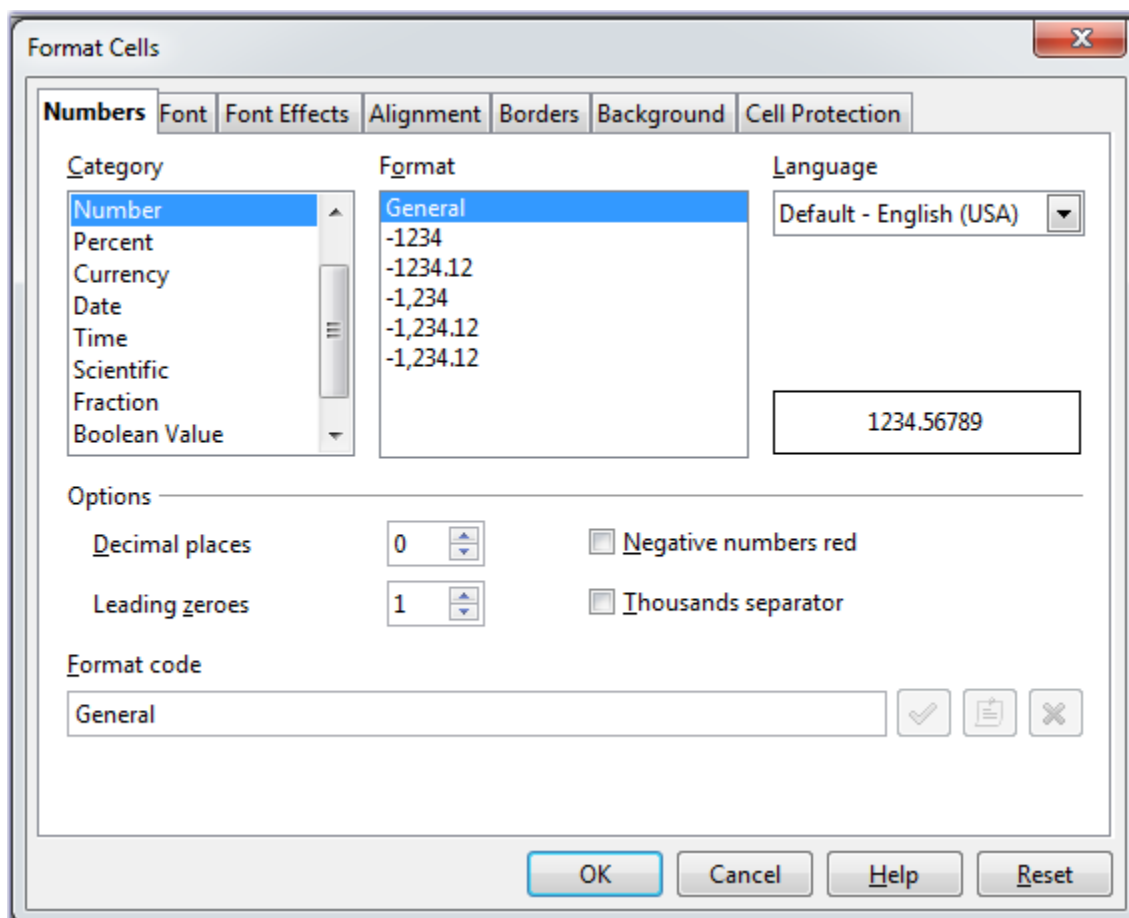


Fig 29 Format Cells dialog box

- b. Click the **Font** tab (Fig 30). You can select font, font size, etc. from this tab.

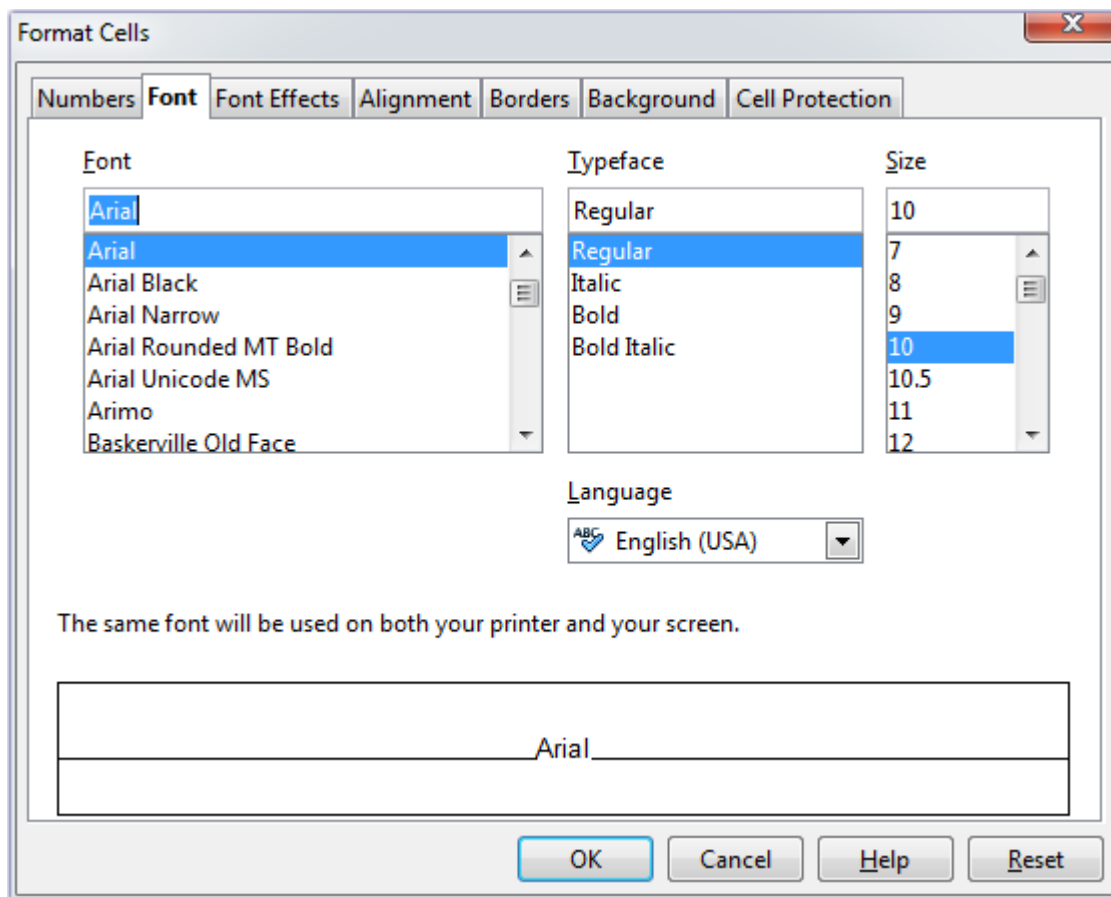


Fig 30 Font tab

- c. Click **Font Effects** tab (Fig 31).

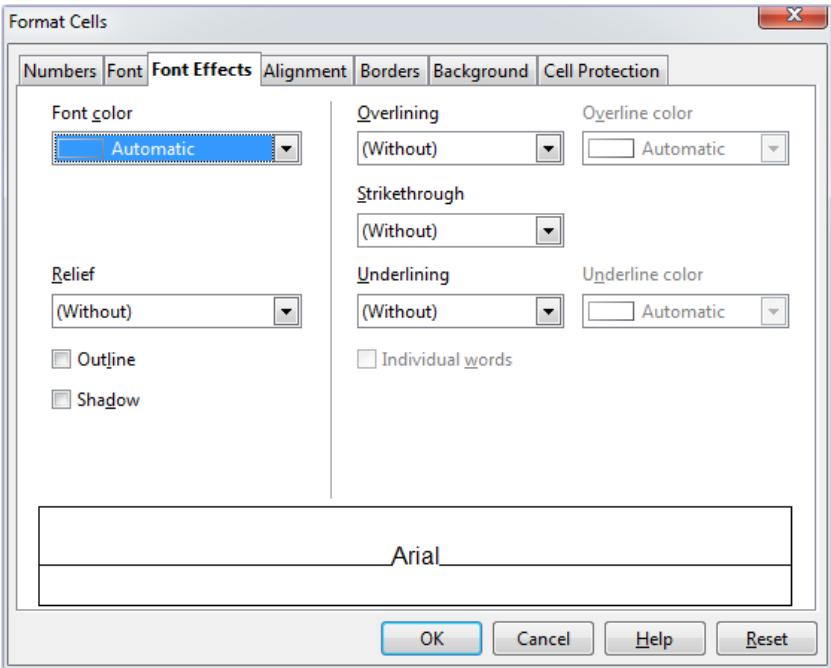


Fig 31 Font Effects tab

d. Click **Alignment** tab (Fig 32).

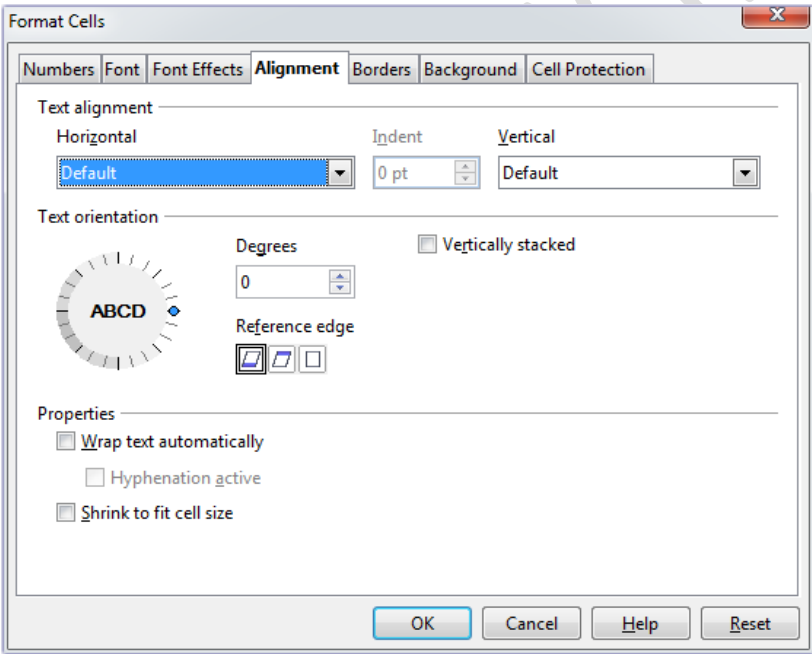


Fig 32 Alignment tab

e. Click **Borders** tab (Fig 33).

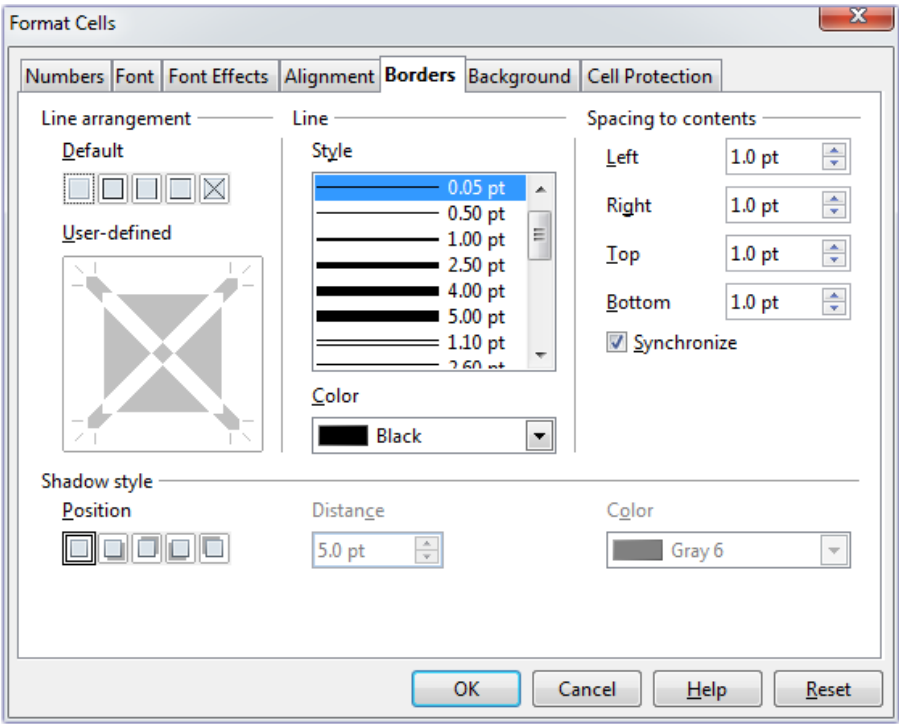


Fig 33 Borders tab

f. Click **Background tab** (Fig 34).

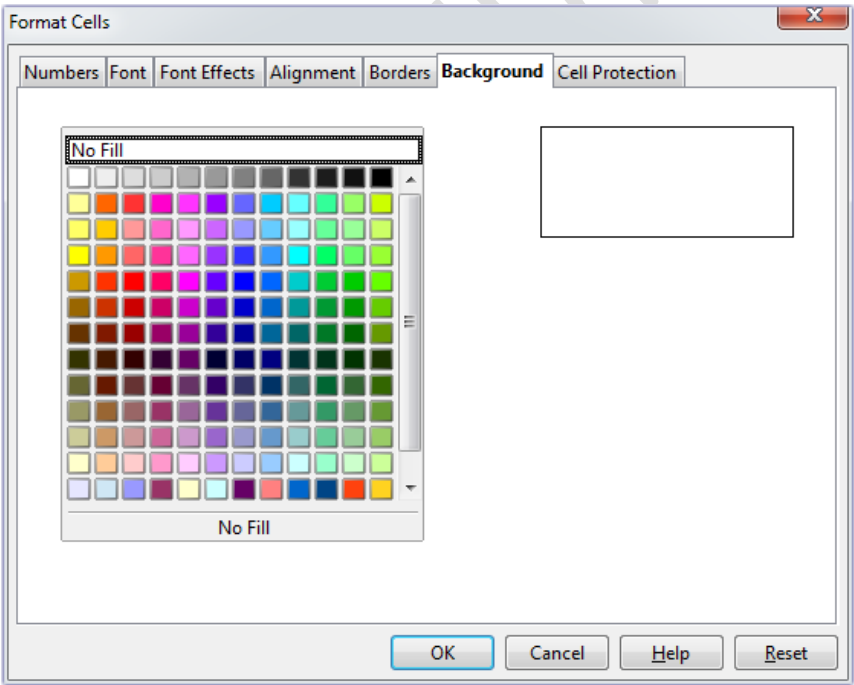


Fig 34 Background tab

Using Autofill

The **AutoFill** feature of Calc allows you to fill a range of cells with a series of data without typing all of it.

The predefined series that can be filled in Calc using AutoFill are:

- months of the year
- days of the week.

To use AutoFill for a series the steps are:

1. Select the cell, say A1, which has the data, say, Monday (**Fig. 35**).
You want to fill the rest of the days of the week in the column.
2. Move the mouse pointer to the small black square at the lower-right corner of the cell. This square is called the **fill handle**.
3. When you point to the fill handle, the mouse pointer changes to a cross shape.
4. Drag to enclose the area you want to fill (**Fig. 36**).
4. Release the mouse button. The cells enclosed will be filled with days of the week (**Fig. 37**).

	A	B	C
1	Monday		
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

Fig 35 Selecting cell

	A	B	C
1	Monday		
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

Fig 36 Dragging to fill the list

	A	B	C
1	Monday		
2	Tuesday		
3	Wednesday		
4	Thursday		
5	Friday		
6	Saturday		
7	Sunday		
8			
9			
10			
11			

Fig 37 Filled series

You can also fill a cell range with a series of numbers. The steps are:

1. Type the first two values of the series in two adjacent cells. (Fig 38)
2. Select the two cells. Click the fill handle in the lower-right corner of the selected cells.
3. Drag it to enclose the area you want to fill (Fig. 39).
4. Release the mouse button (Fig. 40). AutoFill uses the difference between the first two numbers and keeps adding it to the last number. So the range gets filled automatically.

	A	B	C
1	1		
2	2		
3			
4			
5			
6			
7			
8			
9			
10			

Fig 38 Selecting cells

	A	B	C	
1	1			
2	2			
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Fig 39 Dragging the autofill handle

	A	B	C
1	1		
2	2		
3	3		
4	4		
5	5		
6	6		
7	7		
8	8		
9	9		
10	10		
11	11		
12			
13			
14			
15			

Fig 40 Filled list

Lets Try It

1. Create the following series in Calc

	A	B	C	D	E	F
1	1	2	1	Sunday	January	
2	2	4	5	Monday	February	
3	3	6	9	Tuesday	March	
4	4	8	13	Wednesday	April	
5	5	10	17	Thursday	May	
6	6	12	21	Friday	June	
7	7	14	25	Saturday	July	
8	8	16	29		August	
9	9	18	33		September	
10	10	20	37		October	
11	11	22	41		November	
12	12	24	45		December	
13	13	26	49			
14	14	28	53			
15	15	30				
16	16	32				
17	17	34				
18	18	36				
19	19	38				
20	20	40				
21						
22						

2. Create the following Worksheet and perform the following commands:

	A	B	C	D	E
1	Apna Store				
2	S. No.	Item name	Price (in Rupees)		
3	1	Biscuits	10		
4	2	Chocolates	25		
5	3	Soft Drinks	30		
6	4	Mineral Water	20		
7	5	Bread	25		
8					
9					
10					

- Merge the cells of the first row
- Change the row height
- Change the column width
- Choose suitable alignment for the text and numbers
- Apply border to the cells .
- Apply background color to the cells of first row.
- Choose suitable font, size and color for the content in the worksheet.
- Insert a column before 'Price' and enter the company name for the products.

Worksheet

1. Mention two ways in which you can select the entire worksheet.

2. How will you refer to the range of cells from A1 to B5?

3. What is the address of the cell formed by the intersection of column 4 and row 7?

4. Name the cell after cell z?

5. Name the menu that has option to save a file.

6. How can you select multiple ranges of cells simultaneously?

7. Write keyboard shortcut for Undo and Redo commands.

8. Which feature of Calc will help you to create a series of week days and multiples of five?

9. How can you quickly change the row height?

10. By default how many worksheets are there in a Calc workbook?

Formula in a Worksheet

Formulae are used to calculate results through arithmetic operations. A formula in Calc always starts with an **equal to (=)** sign.

The data in a formula consists of one or a combination of the following:

Value Numeric (e.g., 45) or string (e.g., "Smiling")

Cell Address B4, A2:C6

Function SUM, AVERAGE, MIN, MAX, etc.

Operator +, -, *, /, >, =, etc.

Parenthesis To control the left to right order of precedence in a formula (e.g., =(B2*B3)*2)

A **formula** is a sequence of values, cell references, functions, and/or operators that is contained in a cell which produces new values from existing values.

To enter a formula:

1. Select a cell and enter the formula directly in the cell or in the **Formula bar**.

2. Press **ENTER** key.
3. The cell will show the result of the formula and not the formula itself. You can see the formula in the **Formula bar** when the cell is selected. (**Fig 41**)

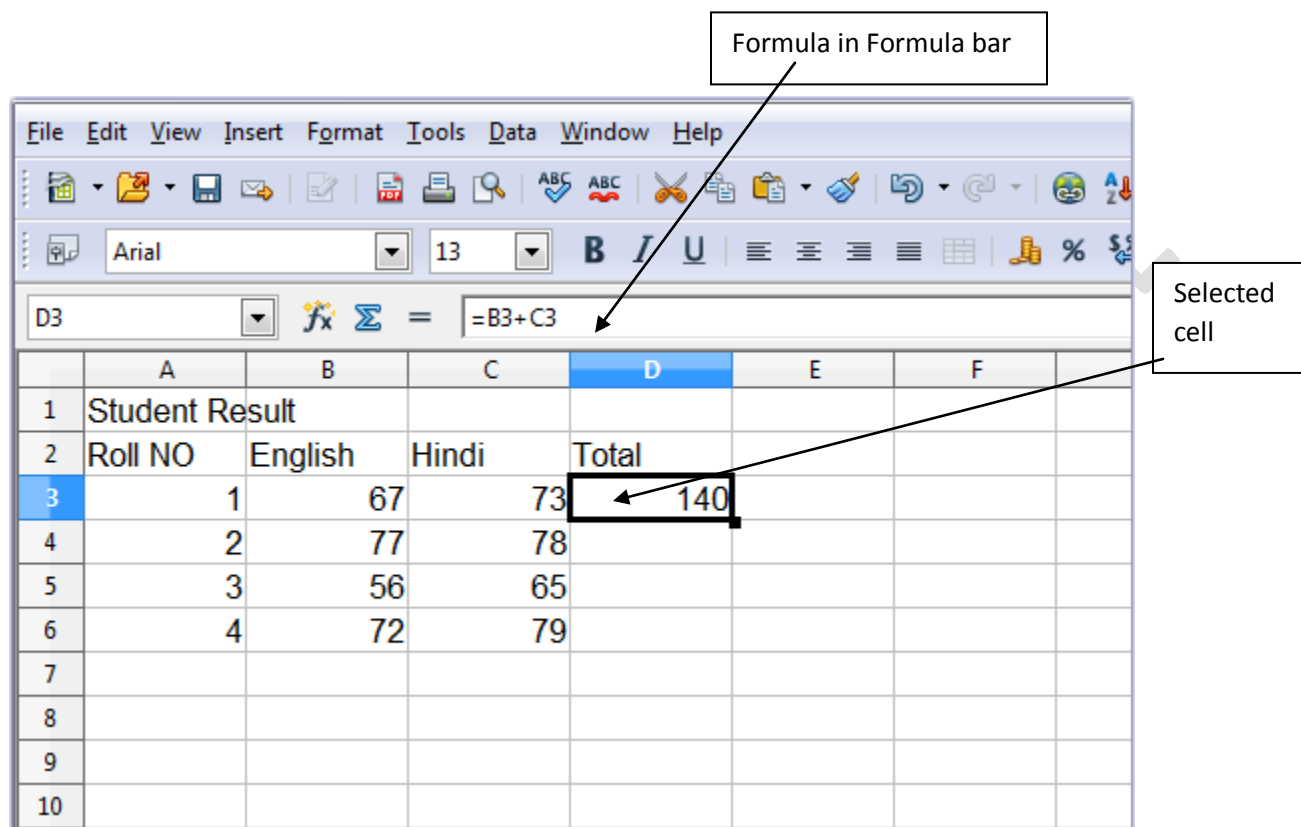


Fig 41 Formula in Formula bar

TEXT FORMULAE

A text string or a text value is a sequence of characters. You can join two strings together. This is called concatenation. We use the ampersand (&) character to concatenate strings.

For example, if you type = "Keep" & " " & "Smiling" in a cell and press **ENTER**, you will see the result as **Keep Smiling**.

You cannot do operations such as subtraction, multiplication, and division on strings.

NUMERIC FORMULAE

In numeric formulae, you have to make use of operators. The results are calculated based on the order of precedence of the operators.

Mathematical Operators Used in Formulae

The mathematical operators used in Calc and their order of evaluation in formulae is given below:

Operation	Operator	Order of evaluation	Formula	Result
Exponent	^	1	$= 2^3$	8
Multiplication	*	2	$= 3 * 5$	15
Division	/	2	$= 9 / 3$	3
Addition	+	3	$= 12 + 15$	27
Subtraction	-	3	$= 18 - 15$	3

Order of evaluation

1. Any operation contained within brackets will be carried out first
2. Then any exponent.
3. Then follow division and multiplication operations. Multiplication and division are given equal importance. They are carried out in the order they occur in the formula, from left to right. Whichever appears first in the formula is carried out first.
4. After that, addition and subtraction operations are given equal importance. They are also carried out in the order they occur in the formula, from left to right.

Following are some examples of how Calc evaluates formulae.

Formula	Output
$= (3 + 7) * 2$	20
$= 4 * 3 + 5$	17
$= 3 + 3^2$	12
$= 5 + 3 * 4 - 2$	15
$= 6 + 14 / 2 * 3 - 4$	23

ERROR RESULTS

Sometimes a formula displays an error result rather than a proper value. This happens when the formula or data has a problem and Calc cannot evaluate it.

Some common errors are shown below:

Error	Reason
#####	The column is not wide enough to display the value.
#DIV/0!	The formula contains an invalid operation, i.e., division by zero.
#VALUE!	The formula has invalid argument, e.g., text in a cell where numeric value is required.

Cell and Range References

A cell **reference** identifies a cell or a range of cells. Each cell in the worksheet has a unique address formed by the combination of its intersecting row and column. When a cell address is referred to in a formula, it is called **cell referencing**.

Consider the following examples:

Cell or a Range of Cells

The cell in column B and row 4

Reference

B4

All cells in row 5	5:5
All cells in rows 5 through 9	5:9
All cells in column B	B:B
The range of cells in column F and rows 1 through 7	F1:F7
The range of cells in row 5 and columns C through E	C5:E5
All cells in columns C through G	C:G
The range of cells in columns B through G and rows 4 through 8	B4:G8

ENTERING A FORMULA

All formulae in OpenOffice Calc begin with an **equal to (=)** sign. A formula can contain number, text, arithmetic operators (+, -, *, /), or functions. The order of precedence is already discussed.

Consider the following worksheet.

	A	B	C	D	E	F
1	Student Result					
2	Roll NO	English	Hindi	Total		
3	1	67	73			
4	2	77	78			
5	3	56	65			
6	4	72	79			
7						
8						
9						
10						

Fig 42 Worksheet

To find the total marks:

1. Select cell D3.
2. Type the formula =B3+C3.
3. To copy this formula in other cells:
 - a. Select cell D3.
 - b. Click the AutoFill handle and drag till cell D6. (**Fig 43**)

	A	B	C	D	E	F
1	Student Result					
2	Roll NO	English	Hindi	Total		
3	1	67	73	140		
4	2	77	78	155		
5	3	56	65	121		
6	4	72	79	151		
7						
8						
9						
10						
11						

Fig 43 Copying formula

- c. The formula copied in cell D4 will be =B4+C4.
- d. The formula copied in cell D5 will be =B5+C5.
- e. The formula copied in cell D6 will be =B6+C6.

SUM

You have already learnt how to find total using the formula. You can also obtain the sum of the values in a range of cells by:

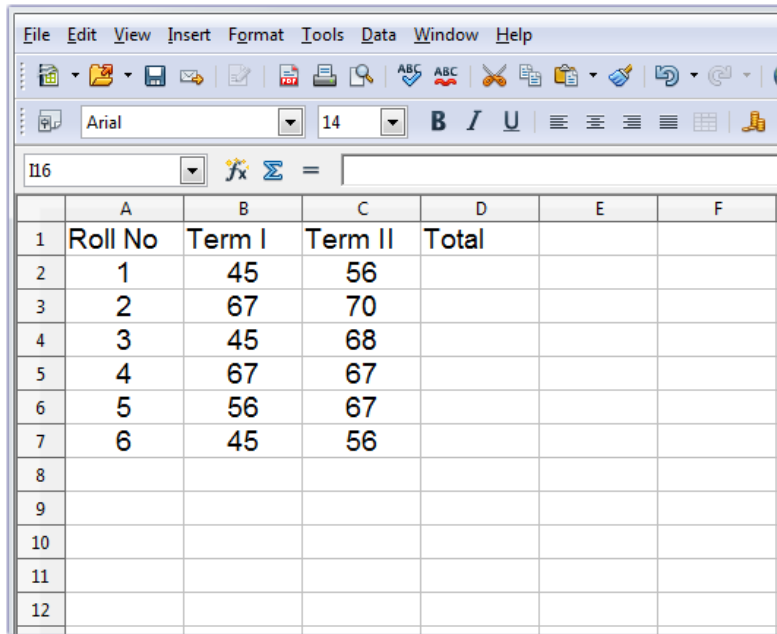
- Clicking the **Sum** button on the **Formula** bar (Fig 44)
- Using the **SUM()** function



Fig 44 Formula bar

Let us consider an example.

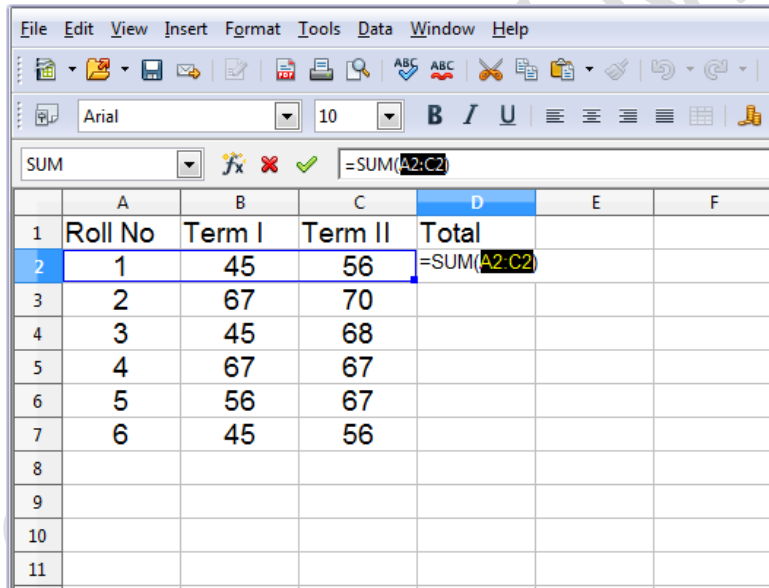
1. Consider the worksheet shown in **Figure 45**.



	A	B	C	D	E	F
1	Roll No	Term I	Term II	Total		
2	1	45	56			
3	2	67	70			
4	3	45	68			
5	4	67	67			
6	5	56	67			
7	6	45	56			
8						
9						
10						
11						
12						

Fig 45 Creating a worksheet

2. Select the cell D2.
3. Click the **Sum** button on the **Formula** bar. Notice it will select the range A2:C2. (**Fig 46**).



	A	B	C	D	E	F
1	Roll No	Term I	Term II	Total		
2	1	45	56	=SUM(A2:C2)		
3	2	67	70			
4	3	45	68			
5	4	67	67			
6	5	56	67			
7	6	45	56			
8						
9						
10						
11						

Fig 46

4. Select the correct range B2:D2 or type the correct range (**Fig 47**).

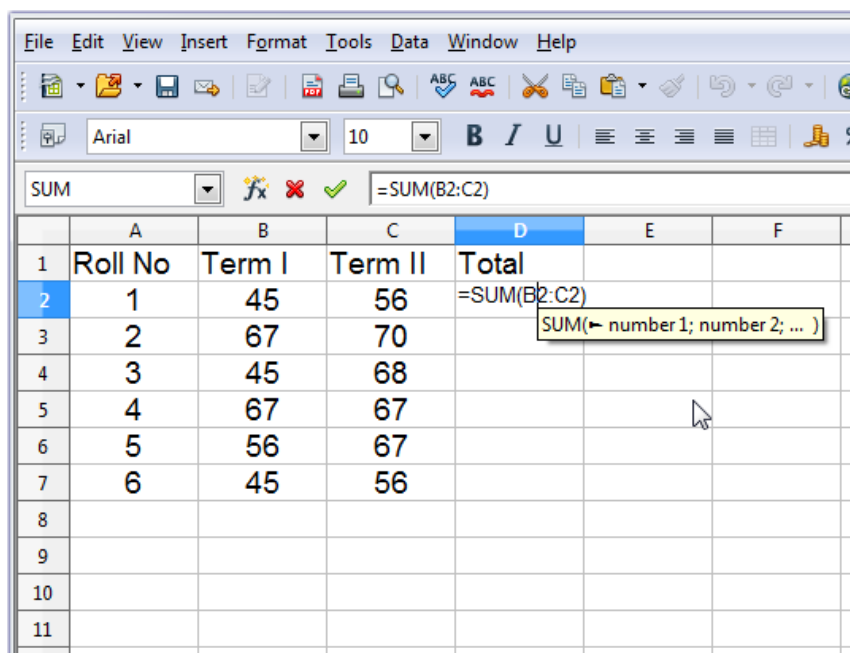


Fig 47

- Press ENTER (**Fig. 48**) to perform the operation. The sum of the range B2:C2 will appear in cell D2.

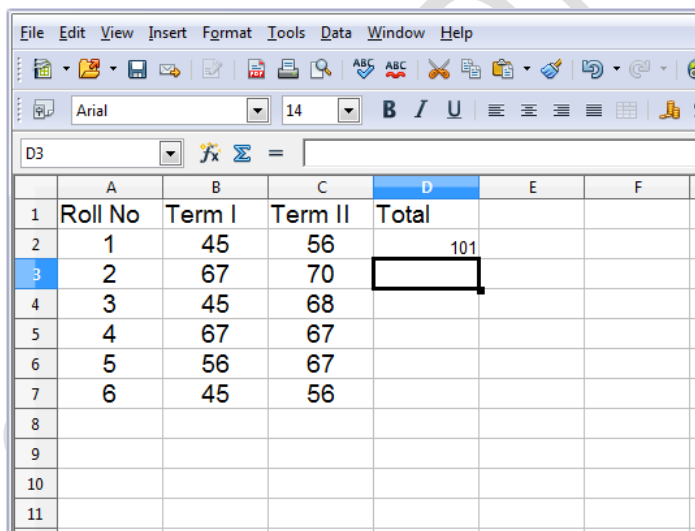
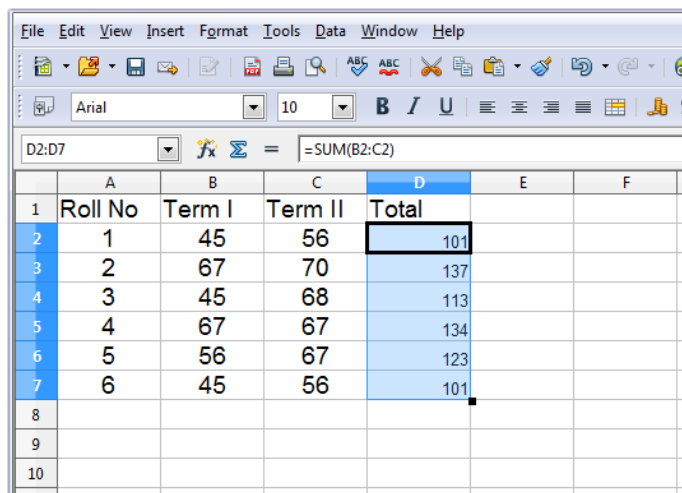


Fig 48

- Select cell D2 and using the AutoFill handle, drag the formula through D7. The respective sums will appear in the respective cells. (**Fig 49**)



	A	B	C	D	E	F
1	Roll No	Term I	Term II	Total		
2	1	45	56	101		
3	2	67	70	137		
4	3	45	68	113		
5	4	67	67	134		
6	5	56	67	123		
7	6	45	56	101		
8						
9						
10						

Fig 49

FUNCTIONS

Functions are predefined formulae that perform calculations using specific values called arguments.

The format of writing any function in Calc is:

=function_name(Argument1;Argument2; Argument3;.....)

Arguments These are the values passed to a function so that the function carries out the intended calculation or manipulation to give results. Arguments can be constants, formulae, or function.

SUM function

SUM function is used to find total of numbers in a range of cells.

For example:

Formula

=SUM(5;6;12)

=SUM(A1;B1;C1) where A1, B1

and C1 contain the values 12, 23

and 14 respectively

Result

23

49

AVERAGE Function

Average function is used to find the average of numbers in a range of cell.

For example:

Formula	Result
---------	--------

=AVERAGE(3;6;9)	6
-----------------	---

=AVERAGE(A1;B1;C1)	5
--------------------	---

where A1, B1 and C1 contain the values 4, 5 and 6 respectively

COUNT Function

The COUNT function is used to count the number of numeric values in a range of cells.

For example:

Formula	Result
---------	--------

=COUNT(5;8;14;19)	4
-------------------	---

=COUNT(A1:A10)	
----------------	--

MAX Function

The MAX function is used to find the maximum of numbers in a given range of cells.

For example,

Formula	Result
---------	--------

=MAX(74;102;134)	134
------------------	-----

=MAX(A1;B1;C1)	
----------------	--

Or

=MAX (A1:C1)	6
--------------	---

where A1, B1 and C1 contain the values 4, 5 and 6 respectively

MIN Function

The MIN function is used to find the minimum of values in the given range of cells.

For example;

Formula	Result
---------	--------

=MIN(74;102;134)	74
------------------	----

=MIN(A1;B1;C1)	
----------------	--

Or

=MIN (A1:C1)	4
--------------	---

where A1, B1 and C1 contain the values 4, 5 and 6 respectively

PRINTING A WORKSHEET

Select **File** ➤ **Page Preview (Fig 50)** to view a worksheet so as to get an idea of how it will look when printed.

or

Click the **Page Preview** button on the **Standard bar (Fig 51)**.

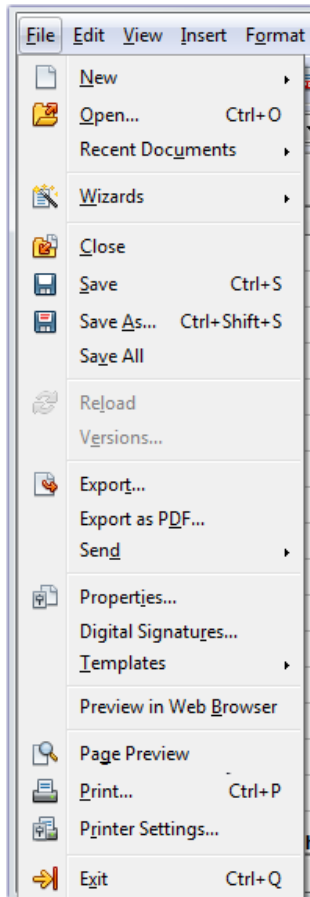


Fig 50

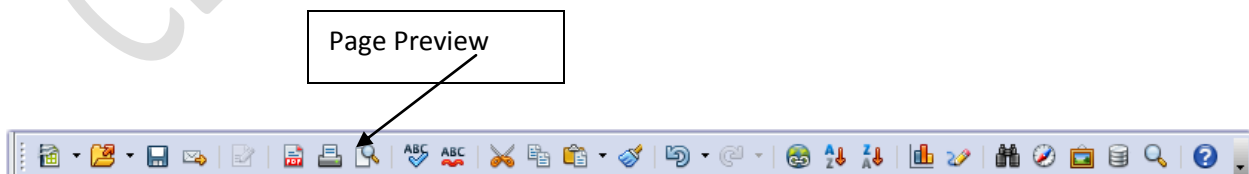


Fig 51

To print a worksheet, the steps are:

1. Click **File** ➤ **Print**.
2. The **Print** dialog box will appear (**Fig. 52**).
3. Select the printer, the range to be printed, and the number of copies.
4. Click the **Print** button.

To quickly print without getting the **Print** dialog box, click the **Print** button on the **Standard** bar. (**Fig 51**)

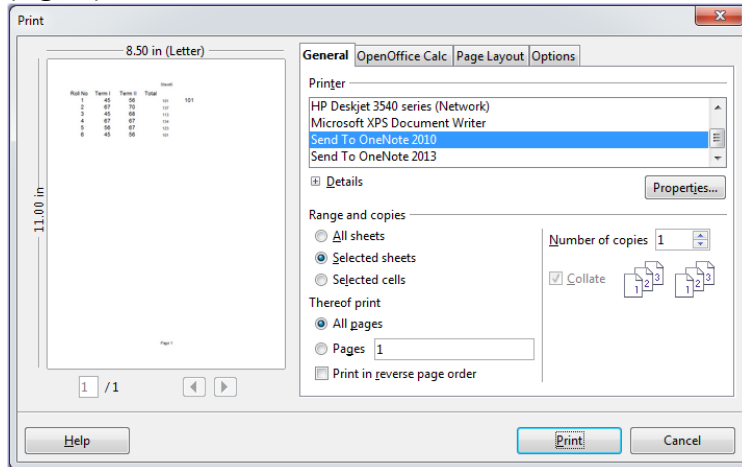


Fig. 52 Print dialog box

Lets Try it

1. Create the following worksheet and calculate total and percentage for each student.

	A	B	C	D	E	F	G	H	I	J
1	Student Result									
2	Roll No	Name	English	Hindi	Maths	Science	Social Science	Total	Percentage	
3	1	Jatin	67	75	56	66	70			
4	2	Shreya	76	67	60	67	62			
5	3	Sooraj	68	66	56	58	60			
6	4	Kamal	70	68	54	62	64			
7	5	Sanjana	62	70	68	64	68			
8										
9										
10										

2. Create the following worksheet. Calculate area and perimeter of square.

	A	B	C	D
1	Area and perimeter of a Square			
2	Side of a Square (in cm)	Area in Sq. Cm	Perimeter in cm	
3	4			
4	8			
5	12			
6	23			
7				
8				
9				

3. Create the following worksheet. Calculate area and perimeter of rectangle.

	A	B	C	D	E
1	Area and perimeter of rectangle				
2	Length in cm	Breadth in cm	Area in sq. cm	Perimeter in cm	
3	12	5			
4	10	4			
5	14	6			
6	13	8			
7					
8					
9					
10					

4. Create the following worksheet and perform calculations using functions in Calc.

File Edit View Insert Format Tools Data Window Help								
Times New Roman 14 B I U								
J13 fx Σ =								
	A	B	C	D	E	F	G	H
1	Student Result							
2	Roll No	Name	English	Hindi	Maths	Science	Social Science	Total
3	1	Saurabh	67	75	56	66	70	
4	2	Madhur	76	67	60	67	62	
5	3	Tamana	68	66	56	58	60	
6	4	Stuti	70	68	54	62	64	
7	5	Girish	62	70	68	64	68	
8								
9	Maximum							
10	Minimum							
11								
12								
13								

Worksheet

1. How will you refer to a cell in column B and row 3?
2. How will you refer to range of cells in row 5?
3. How will you refer to range of cells in column D through F and rows 3 through 8?
4. Write mathematical operator for the following operation:
 - a. Multiplication
 - b. Division
5. If formula in cell C3 is =A3+B3, what formula will be copied in cell D3?
6. How will you write a function to find average of numbers 5, 12, and 17?
7. Name the function used to find total of numbers in the range of cells A1 to A10.
8. Name the menu used to print the document.
9. What error will you get if the column is not wide enough to display the value?
10. What happens if you write the formula =45/0 in cell A1?

Session 3

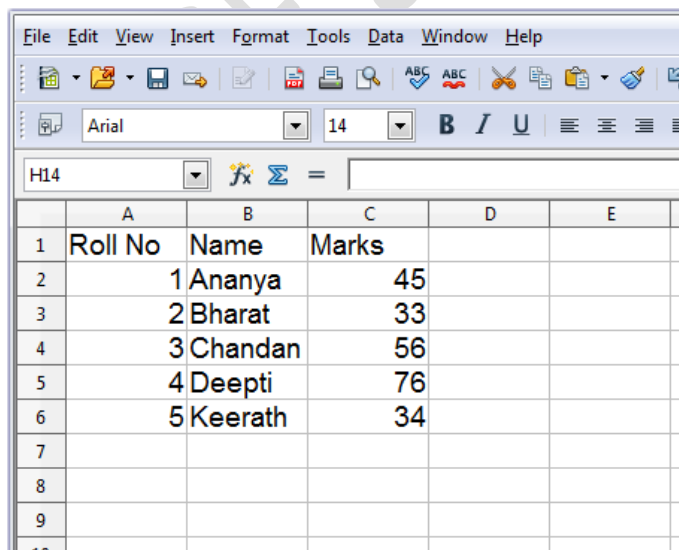
SORTING DATA

Once you have entered data and applied relevant formulas in a worksheet, you can change the order in which the data is present in the cells. This is called sorting of data.

Sorting on numerical and textual values is a one of the main features of any spreadsheet software. In Calc, sorting can be done in the following manner.

Sorting on One Column

1. Enter data in a worksheet (**Fig. 53**).
2. Select any cell, say C1.
3. Click the **Data** option from the **Sort** menu (**Fig. 54**)



	A	B	C	D	E
1	Roll No	Name	Marks		
2	1	Ananya	45		
3	2	Bharat	33		
4	3	Chandan	56		
5	4	Deepti	76		
6	5	Keerath	34		
7					
8					
9					
10					

Fig. 53 Data in worksheet

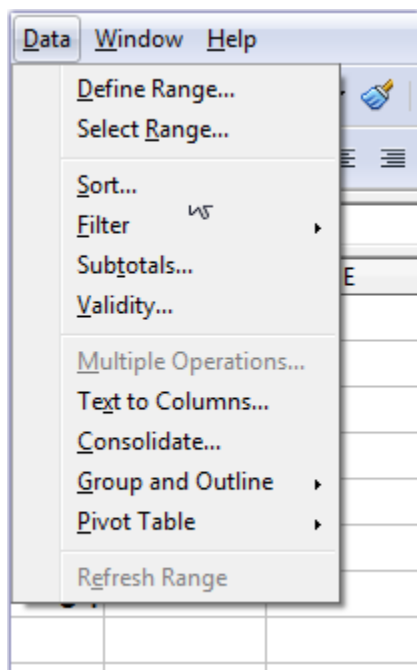


Fig. 54 Sort option in the Data menu

3. The **Sort** dialog box appears (**Fig. 55**). Notice that column **Marks** appears under **Sort by** section.
4. Select the **Descending** option under **Sort by** and click **OK**.
5. The data in column **Marks** is sorted in descending order. (**Fig 56**)

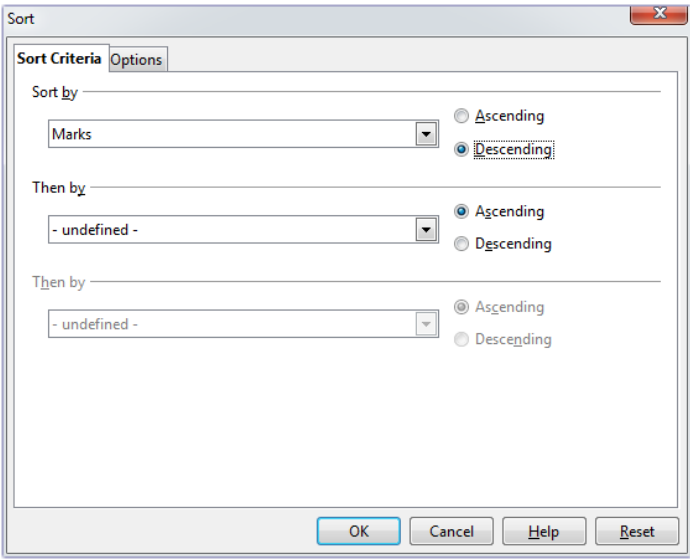


Fig 55 Sort dialog box

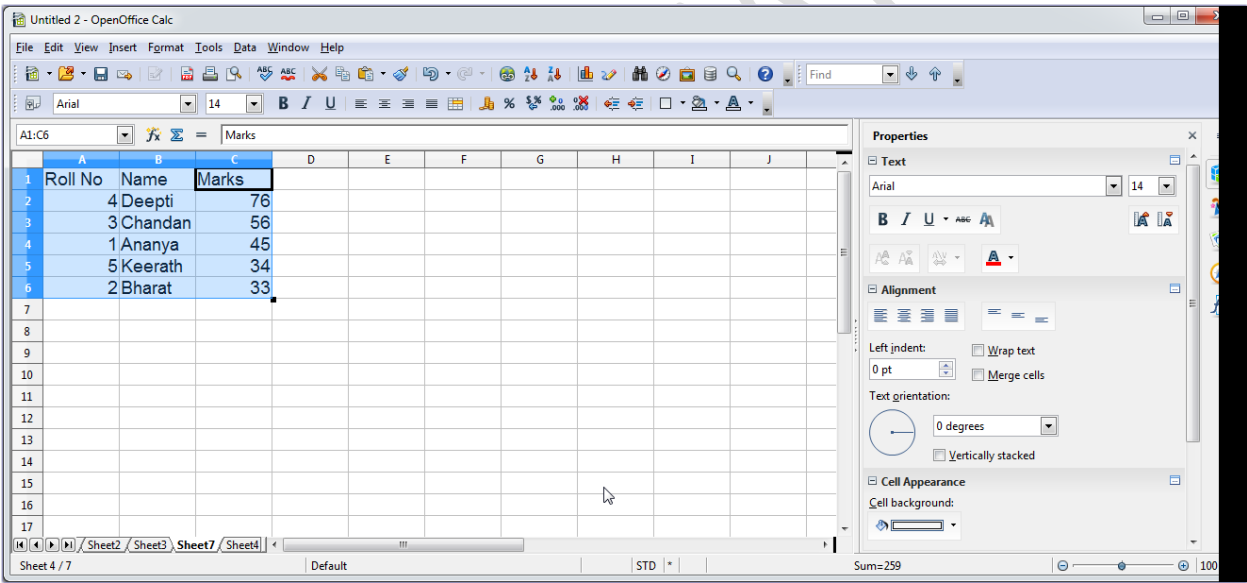


Fig 56 Data arranges in descending order of Marks

You can also sort the data on one column is by using the sorting icons on the **Standard** bar. On the **Standard** bar, click(Fig 57)

- The **Sort Ascending** button to sort the data in ascending order.
- The **Sort Descending** button to sort the data in descending order.

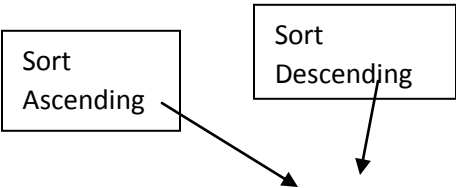




Fig 57 Sort buttons on Standard bar

Sorting on Multiple Columns

You can sort the data on multiple columns.

- 1. Consider the following worksheet. (Fig 58)

	A	B	C	D	E
1	Salesman No	Salesman Name	Total Sale		
2	S1	Abhijeet	3456		
3	S2	Farhan	2345		
4	S3	Sudesh	4455		
5	S4	Rohit	3456		
6	S5	Deepak	2345		
7	S6	Madan	5467		
8	S7	Sooraj	4563		
9					
10					
11					

Fig 58 Worksheet

- 2. Select cell, say C1.
- 3. Select Sort option from Data menu.
- 4. The Sort dialog box appears.
- 5. The **Sort Criteria** tab on the **Sort** dialog box has options to sort the data on multiple columns.
- 6. Select the options as shown in **Figure 59**.
- 7. The data is sorted in descending order of column **Total Sale**, and where total sale is same, sorting is done in ascending order of column Salesman Name. (Fig 60)

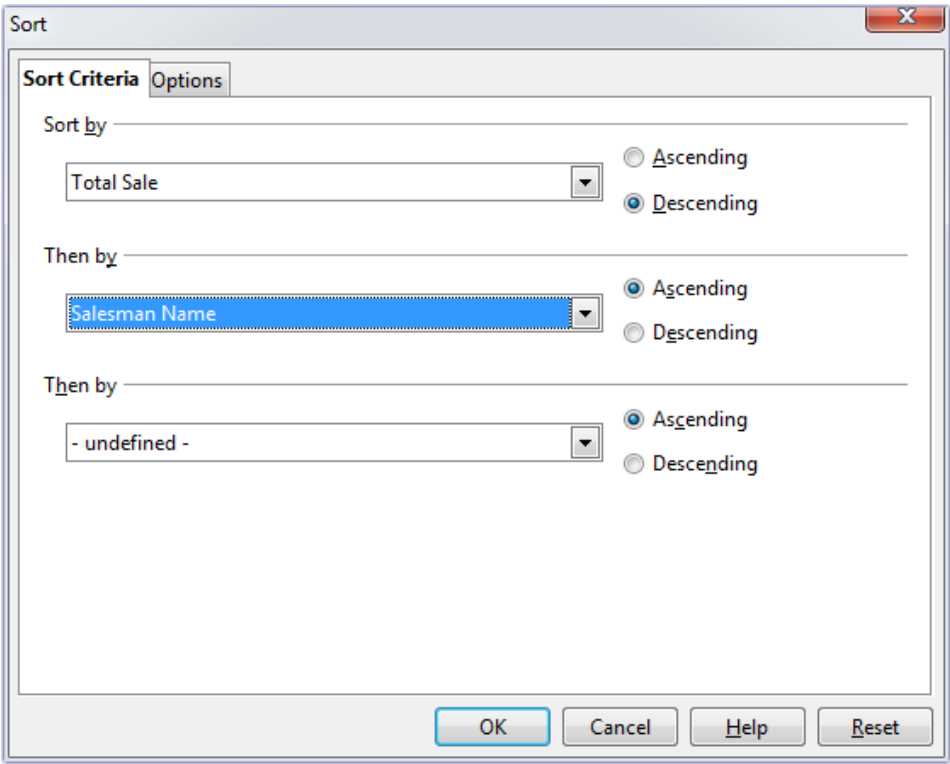


Fig. 59 Multiple columns selected in the **Sort** dialog box

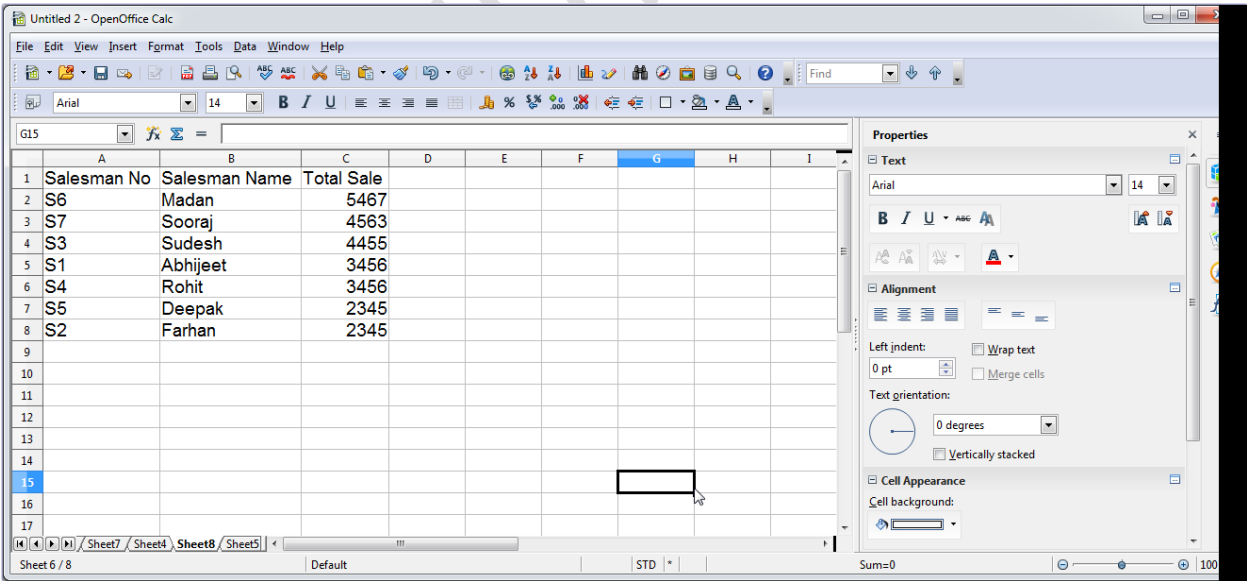


Fig 60 Data sorted on multiple columns

FILTERING DATA

Filtering is a quick and easy way to find and work with selected data based on the criteria you specify. The filter feature selectively blocks out the data you do not want to see and displays only the rows or columns that meet the conditions or criteria you specify. Sorting rearranges the range of cells but filtering only hides temporarily the rows/columns you do not want.

Different ways in which filtering can be done in Clac are:

- AutoFilter
- Standard Filter

AutoFilter

To apply AutoFilter in a worksheet, the steps are:

1. Select cell, say, A1.
2. Select **Data** ➤ **Filter** ➤ **AutoFilter (Fig. 61)**.
3. A drop-down menu arrows appear in each column heading (**Fig 62**).

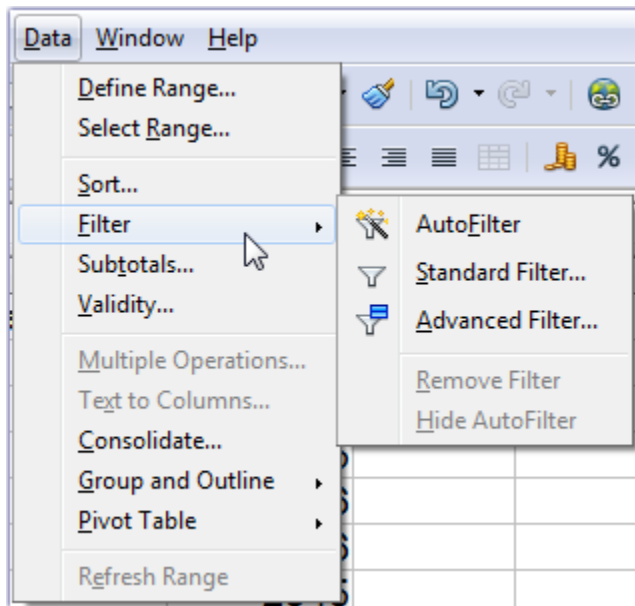
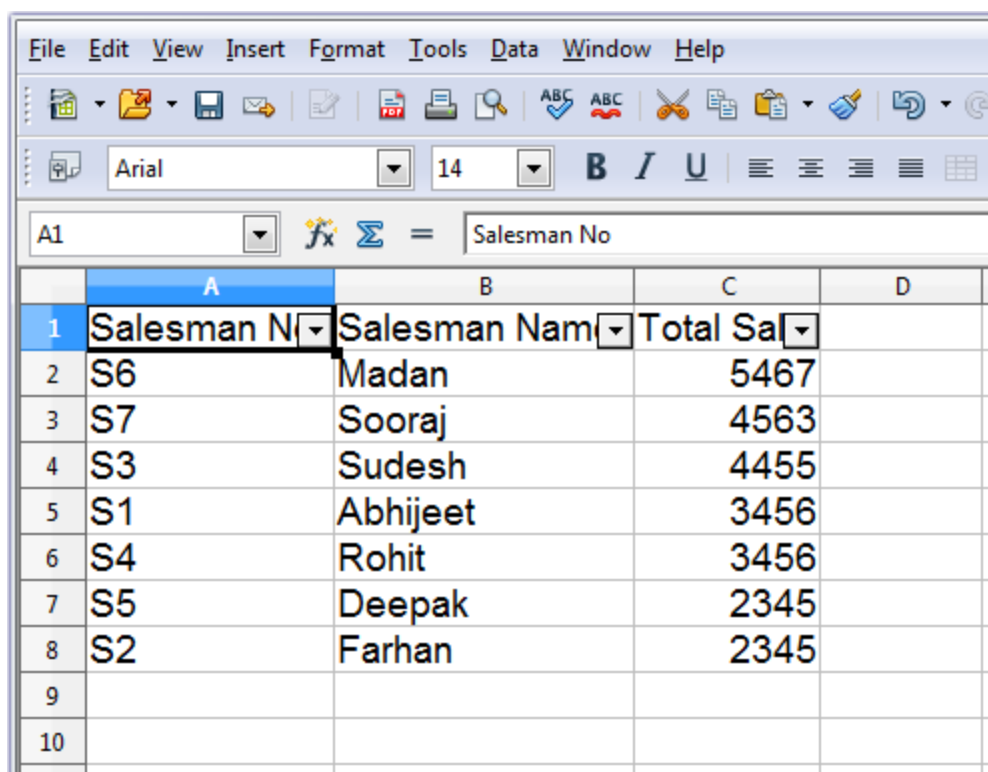


Fig. 61 AutoFilter option in the **Data** menu



	A	B	C	D
1	Salesman No	Salesman Name	Total Sales	
2	S6	Madan	5467	
3	S7	Sooraj	4563	
4	S3	Sudesh	4455	
5	S1	Abhijeet	3456	
6	S4	Rohit	3456	
7	S5	Deepak	2345	
8	S2	Farhan	2345	
9				
10				

Fig. 62 Drop-down menu arrows in column Headings

4. Click the drop-down menu arrow for **Total Sales** and select an item (**Fig 63**).
5. Only those rows whose contents meet the filter criteria are displayed. (**Fig 64**)
 - a. To display all the records again, select the **All** option in the filter drop-down menu.
 - b. Select **Top 10** to display the highest 10 values.

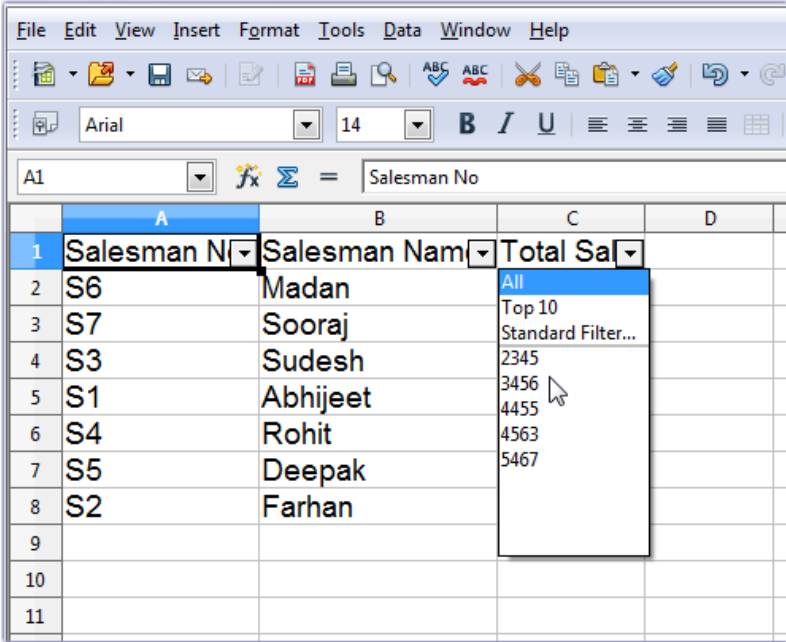


Fig. 63 Drop-down menu for Total

Standard Filter

To apply standard filter in your worksheet, the steps are:

1. Select **Data > Filter > Standard Filter**. (Fig. 61).
2. The **Standard Filter** dialog box appears (Fig. 64).
 - a. You can use the dialog box to connect multiple conditions with either a logical AND or a logical OR operator.
3. Select the options in the **Standard Filter** dialog box (Fig. 64). The records with Total Sales greater than 4000 will be displayed (Fig. 65).

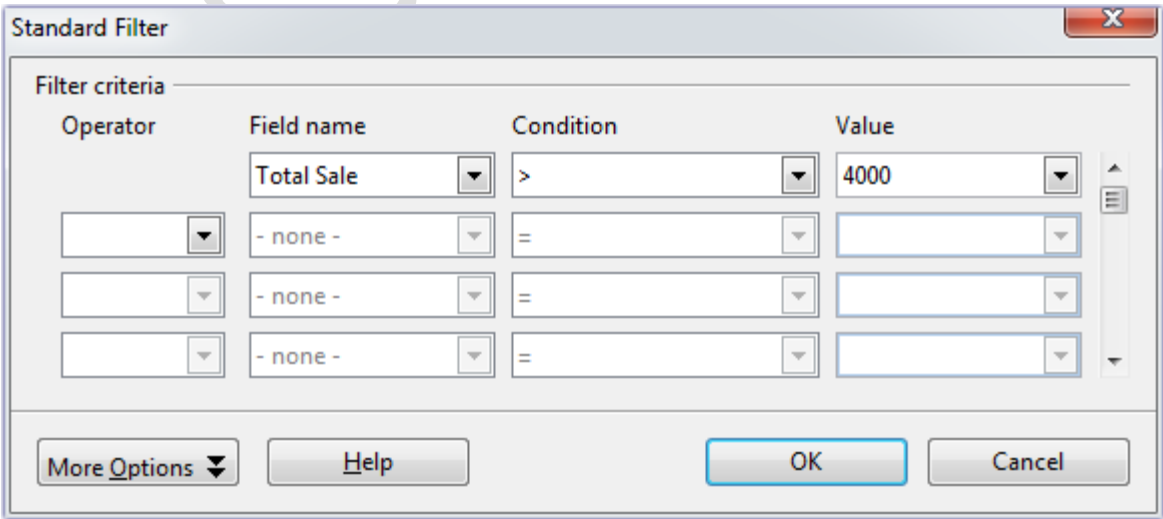
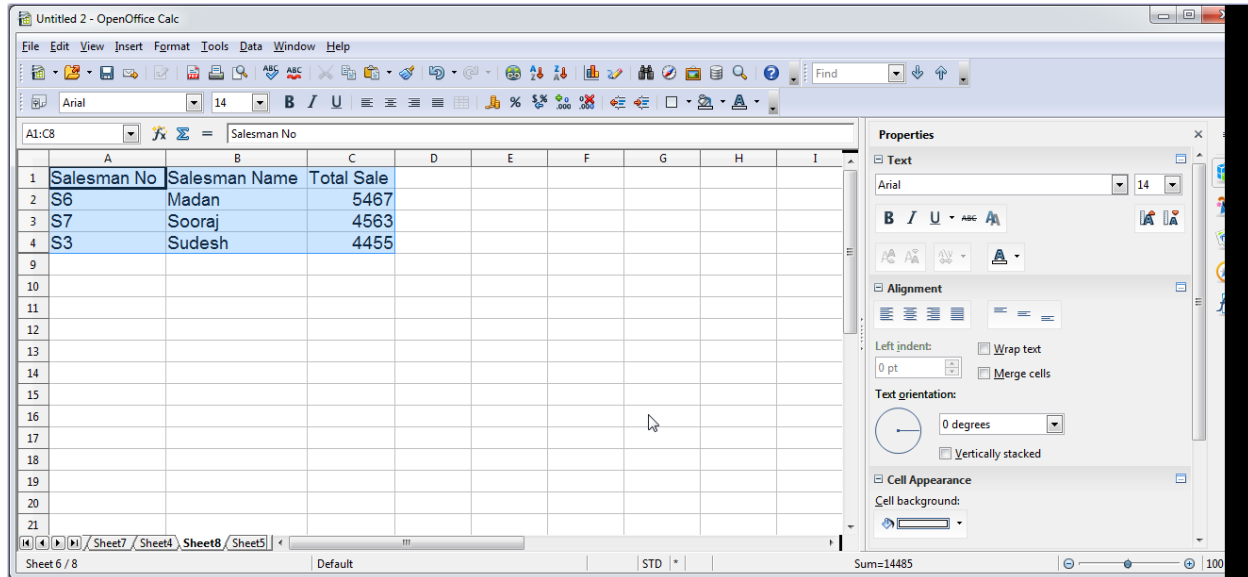


Fig. 64 Standard Filter dialog box**Fig. 65 Rows after applying Standard Filter**

To remove the filter,

1. Select **Data ➤ Filter ➤ Remove Filter (Fig. 66)**.

To hide the filter,

1. Select **Data ➤ Filter ➤ Hide AutoFilter**.

To remove the filter from column headings,

1. Select **Data ➤ Filter ➤ AutoFilter**.

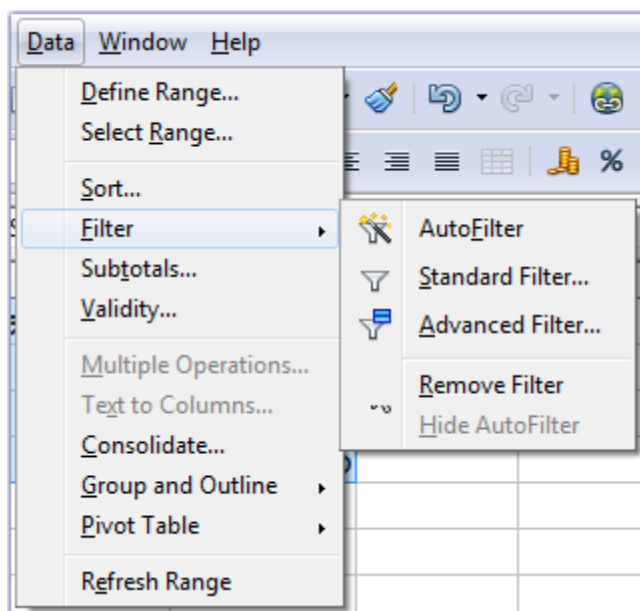


Fig. 66 Remove Filter option

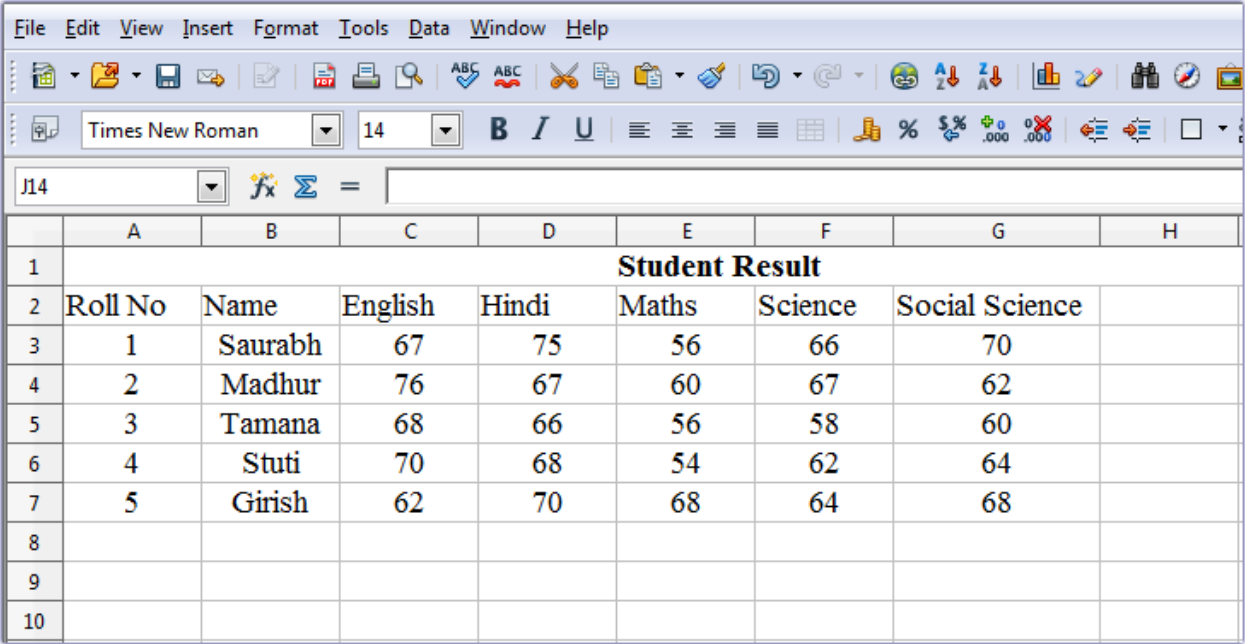
Conditional Formatting

Conditional formatting is a feature in Clac that allows you to set a cell's format according to the conditions that you specify.

For example, using conditional formatting, you can display numbers in a particular color, depending on whether they are greater than, equal to, or less than a certain value.

The steps are:

1. Consider the worksheet given in **Fig. 67**.
2. Select cells. In this worksheet C3 to G7.
3. Select **Format** ➤ **Conditional Formatting (Fig. 68)**.
4. The **Conditional Formatting** dialog box appears (**Fig. 69**).
5. To select the formatting for cell value greater than or equal to 60 :
 - a. Select **New Style** button of Condition 1.



The screenshot shows a Microsoft Excel worksheet with the following data:

	A	B	C	D	E	F	G	H
1	Student Result							
2	Roll No	Name	English	Hindi	Maths	Science	Social Science	
3	1	Saurabh	67	75	56	66	70	
4	2	Madhur	76	67	60	67	62	
5	3	Tamana	68	66	56	58	60	
6	4	Stuti	70	68	54	62	64	
7	5	Girish	62	70	68	64	68	
8								
9								
10								

Fig 67 Worksheet

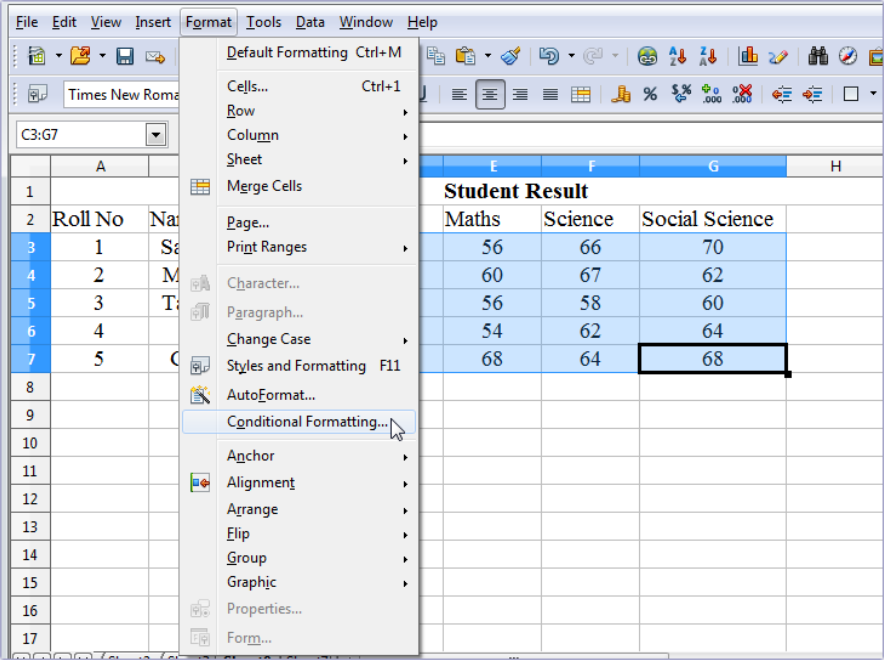


Fig 68 Conditional Formatting option of Format menu

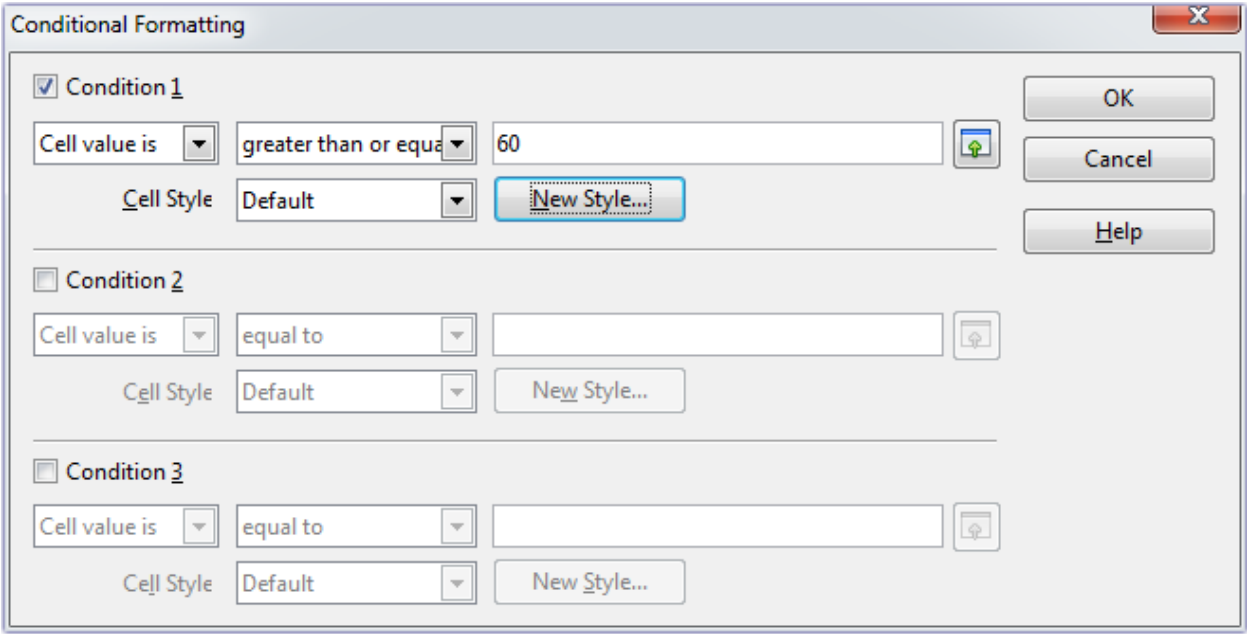


Fig 69 Conditional Formatting dialog box

6. The **Cell Style** dialog box appears (Fig. 70). Select the **Font** tab and click Bold Italic under Typeface.

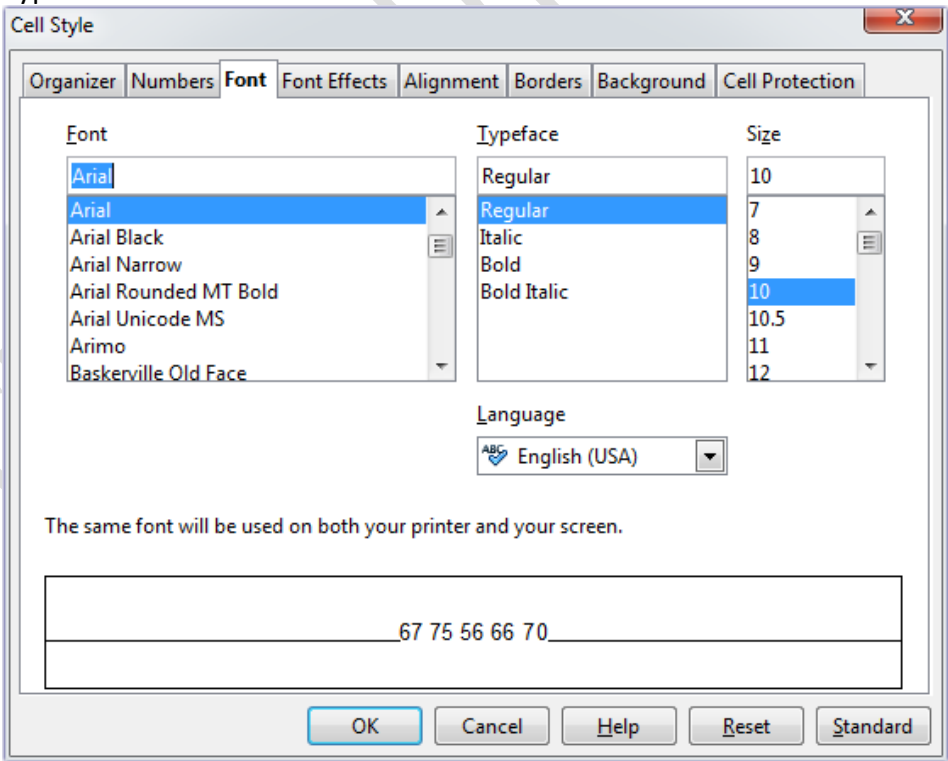


Fig 70 Font tab of Cell Style dialog box

7. Select the **Font Effects** tab and change the font color (Fig 71).
8. Select the **Background** tab and click Black. (Fig 72)
9. Click **OK**.

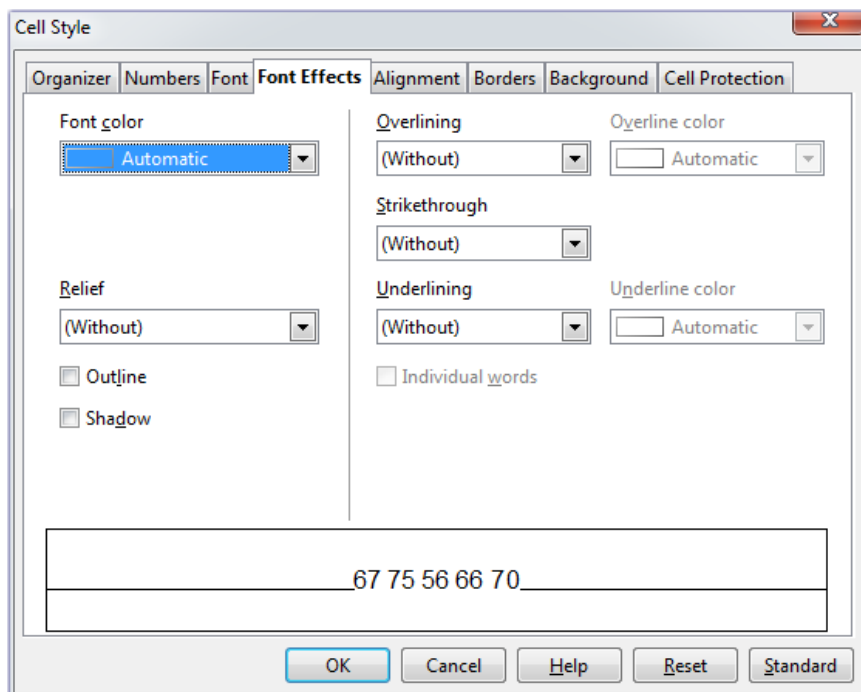


Fig. 71 Font Effects tab of Cell Style dialog box.

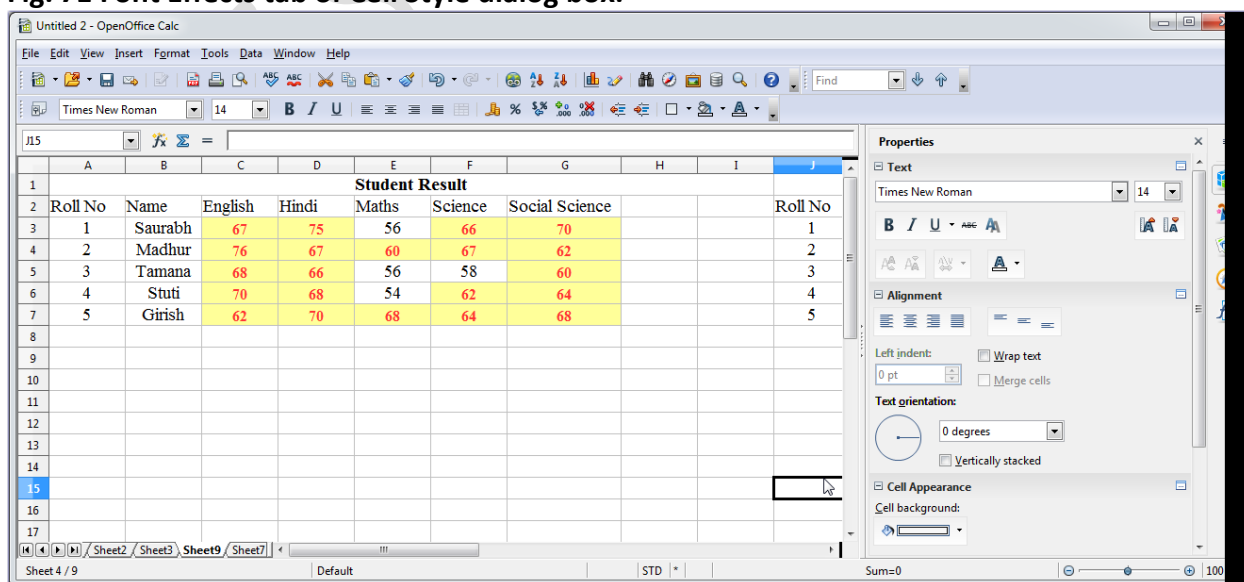


Fig 72 background tab of Cell Style dialog box

7. Click OK. The Conditional Formatting dialog box appears. Click **OK**. The worksheet will appear as in **Figure 73**.

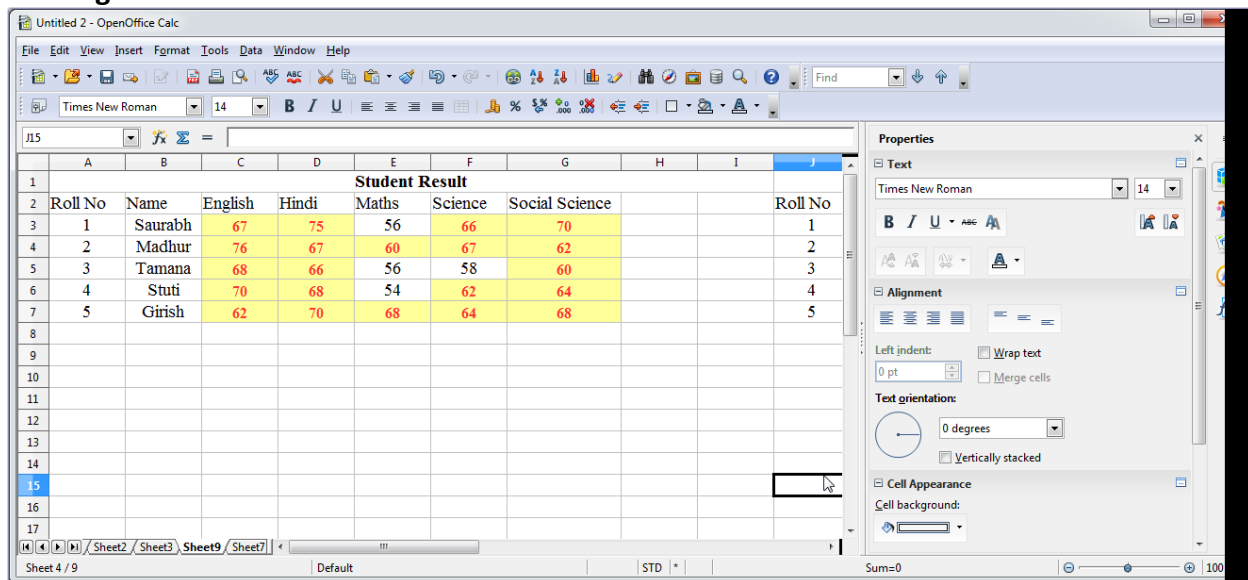


Fig. 73 Conditional formatting applied

Lets Try It

1. Create the following worksheet and perform the following operations:

	A	B	C	D
1	S. No	Mountain	Height in mm	
2	1	Mount Manaslu	8163	
3	2	Mount Everest	8848	
4	3	Mount kanchenjunga	8586	
5	4	Mount K2	8611	
6	5	Nanga Parbat	8125	
7				
8				
9				

- a. Sort the table in ascending order of height.
- b. Filter the data to view only those rows where height is more than 8500 m.

2. Create the following worksheet and perform the following operations

	A	B	C	D	E	F	G	H
1	Student Result							
2	Roll No	Name	English	Hindi	Maths	Science	Social Science	
3	1	Pratham	74	45	44	65	56	
4	2	Keerath	68	56	60	67	62	
5	3	Shreya	56	67	56	55	59	
6	4	Jigyasa	45	55	44	56	58	
7	5	Utkarsh	67	70	48	63	61	
8								
9								

- a. Filter the records according to the following condition:
 - i. Numbers greater than 60 should in bold, size 14 and green color.
- b. Add another column at the end with heading 'Total marks'
- c. Calculate total marks for each student.
- d. Now, arrange the data in descending order of Total marks.

Entrepreneurial Skills

Introduction

All entrepreneurs are different but there are some characteristics and qualities that have been observed to be common among successful entrepreneurs over the years. Along with the qualities and traits, the motivation to choose the path of entrepreneurship as well as the journey to success is also different for each entrepreneur. However, one thing that drives all entrepreneurs is the sense of purpose behind their venture as well as willingness to take the leap and implement their ideas. More than anything, most entrepreneurs follow a basic process of entrepreneurship to kick start their ventures.

Entrepreneurial Competencies

Entrepreneurial behavior requires certain knowledge, skills or personality profile. Generally, it is called entrepreneurial competence or traits. A competence may be defined as underlying characteristics of a person which results in effective and/or superior performance in a job. Entrepreneurial competencies play a key role in the success of an entrepreneur and in achievement of entrepreneurial goals.

Common Entrepreneurial Competencies

In a study conducted by David C. McClelland, a reputed behavioural scientist, and Entrepreneurship Development Institute of India (EDII), certain competencies were identified that were found in successful entrepreneurs who exhibited superior performance. These competencies can be developed through training, experience and guidance in a budding entrepreneur. Some of these competencies include:

- 1. Initiative:** It is an inner urge in an individual to do or initiate something. It is the entrepreneur who takes the first move towards setting up of an enterprise. Most innovative entrepreneurs have this urge to do something different. An entrepreneur basically is an innovator who carries out new combinations to initiate and accelerate the process of economic development.
- 2. Seeking Opportunity:** An entrepreneur is always on the look-out or searching for opportunity and is ready to exploit it in the best interests of the enterprise.
- 3. Persistence:** An entrepreneur is never disheartened by failures and keeps trying, adapting and iterating to overcome obstacles that come in the way of achieving goals.
- 4. Information Seeking:** A successful entrepreneur always keeps his/her eyes and ears open and is receptive to new ideas which can help in realizing his goals. He/she is always open to consult with experts and mentors to get the right guidance and advice.
- 5. Concern for High Quality:** Successful entrepreneurs are seen to be not satisfied with moderate or average performance. They set high quality standards for themselves and then put in their best for achieving these standards. They believe in excellence, which is reflected in everything they do.

6. Commitment: Entrepreneurs exhibit high level of commitment towards their work and decisions. For an entrepreneur to succeed, they have to stay committed to their venture and their goal.

7. Concern for Efficiency: Many entrepreneurs are always keen to devise new methods aimed at promoting efficiency. They try and create new methods that aim at making working easier, simpler, better, and economical.

8. Systematic Planning: Successful entrepreneurs decide future course of action keeping in mind the goals to be achieved. They believe in developing relevant and realistic plans and ensure proper execution of the same in pursuit of running a successful enterprise.

9. Problem Solving: An entrepreneur takes each problem as a challenge and put in best for finding out the most appropriate solution for the same. He/she will first of all understand the problem and then evolve appropriate strategy dealing with the same.

10. Self-confidence: Entrepreneurs are not cowed down by difficulties as they believe in their own abilities and strengths. They have full faith in their knowledge, skill and competence and have the confidence to handle future uncertainties.

11. Assertiveness: An assertive person knows what to say, when to say, how to say and whom to say. Entrepreneurs exhibit assertiveness in situations around decision making to ensure that interests of the organization are aligned with decisions and actions of the entrepreneur and its team.

12. Persuasiveness: Entrepreneurs have to persuade different cohorts of people at different stages, such as employees, customers, clients, suppliers etc. Through sound opinions and logical reasoning, an entrepreneur manages to convince others about what he/she wants.

13. Effective Strategist: A successful entrepreneur possesses the ability to formulate relevant strategies, aimed at safeguarding or promoting the organization's interests and goals. Strategy may be with respect to facing future uncertainties or challenges posed by competitors etc.

14. Effective Monitoring: Entrepreneurs monitor that everything is carried out in their organizations as per their decisions but at the same time give some flexibility to the employees. They ensure regular monitoring of the working so that the goals of the organization are achieved in best possible manner.

15. Concern for Employees Welfare: Future of the organisation depends on its employees. If the employees are dedicated, committed and loyal, the organisation is bound to perform well. A successful entrepreneur tries to promote organisation's interest through promotion of interests of the workers. He/she takes personal interest in solving problems confronting workers and generates the feeling that there is interdependence of the interest of workers and the management.

Benefits of Entrepreneurial Competencies

- Taking actions to implement your ideas.
- Understanding the need or the problem your offering is fulfilling or solving.

- Strategizing and planning the steps that need to be taken.
- Preparing an action plan and timeline.
- Networking with stakeholders.
- Interacting with customers.
- Gaining and analyzing insights.
- Looking for alternatives and adjusting plans according to analysis and feedback.
- Evaluating and calculating the risk involved.
- Building and motivating a team.
- Being patient and staying motivated to overcome and work around various obstacles.
- Showing the value that the business is creating for stakeholders and customers.
- Gaining the know-how of creating, building, launching, sustaining, managing and growing a business.

Activity I

Self-reflect and check if you relate to the statements given below:

I like to give myself challenges when I take on a new project.
Where others see problems, I see possibilities.
I do not worry about what others will think before doing something important.
I am fairly curious and I am continually in search of discovery.
I want to build something that will be recognized publicly.
When I take on a project I have confidence that I will carry it out successfully.
I feel that am capable of seeing many solutions to a problem.
I always try to learn lessons from my failures.
I am not afraid to take on initiatives.
I manage my stress well in ambiguous and uncertain situations.

After some self-reflection, consider the competencies of entrepreneurs given above. Self-evaluate yourself on these competencies by giving a rank number to each.

For example:

Self-confidence – 1
Commitment – 4
Problem Solving – 6

According to the above ranking, one thinks that self-confidence is their strongest competency. Commitment comes at the 4th rank and problem solving at the 6th. Thus, problem solving as a competency is weaker than commitment for the person in the example given above.

Activity II

Let us look at the example of Byju Raveendran, who started the famous education platform, Byju’s. He took some action steps that helped him develop these competencies and make Byju’s a successful startup.

Example:

Byju’s learned English, Math and science on his own during his school years. Especially, he learnt English by listening to commentaries. With this, he realized how for many students in the Indian education system, learning is involved rote learning and then reproducing the learnt information in the exams, with bare minimum application. With Byju’s, he successfully tackled the root of the problem of learning.

Which competency did he develop?

Ans. Problem Solving

Please write the competencies, among the competencies given below, that you think match with the action step taken by Byju Raveendran in the section below.

When Byju’s started, it was in the offline format. With classrooms with a large capacity, interaction was limited and rather not really possible. Thus, Byju Raveendran started to think of ways to solve this problem, by predicting what kind of doubts a student could have and visualized and conceptualized the teaching material beforehand.

In 2003, Byju’s helped a few friends study for the CAT exam, which is the common entrance exam for Indian business and management schools. With his tutoring, his friends did well in the exam, after which he wrote the exam and ended up scoring in the 100th percentile. However, he returned to his job in the UK, but came back to India two years later, and helped some more people with the CAT exam. By this stage, he got immense positive feedback and had coached enough number of people who got good results. This made Raveendran realize that he actually felt passionate about teaching. He quit his IT job in the UK, took to an entrepreneurial path and stayed committed to it.

Teaching for entrance exams such as CAT, Raveendran realised that the problem was much deep rooted. The insight he gained was that students were not learning basics and fundamentals at the school level, and this led to Byju's expand into subject-wise coaching for classes 6th to 12th.

Raveendran started by conducting workshops on the weekend. Once he got to a stage when one classroom wasn't enough to accommodate students, he booked an auditorium with a seating capacity of 1,200. From a classroom of 40, he was confident enough to the leap of going 30x but did not worry about whether it would fill in. It was only by the sixth or seventh week the auditorium was full.

Once Byju's started targeting 6th to 12th standards, they had to reach out to students directly. Not just by engaging children, but even by convincing parents that an app is suitable for real-world coaching, Byju's started to make some progress. Raveendran had to influence all stakeholders of education such as students, parents, tutors, educators and schools to communicate his vision and make them trust the product.

Interacting with some of the brightest students and taking feedback on Byju's courses, Raveendran realised that most of them, unfortunately, studied only because of the fear of exams. They are taught to solve a problem but aren't enabled to find a problem. He realised that if his strategy of self-learning was adopted in early years at school, it could potentially create a huge impact.

Byju believes that it is important to execute things in a business, keeping the pace faster than slower. In the initial stages, there is a need of a strong idea and a team. Byju's made a dynamic and detailed business plan in the initial stages, in order to avoid making any huge mistakes. At the same time, he was flexible to making quick or midway changes, throughout the plan. However, he thinks it is best to try out multiple things and keep making changes, but some clarity should be there about the core idea.

Raveendran started his education career as a teacher tutoring for CAT. The initial workshops were free and students paid for advanced workshops once they liked it. From there, once his classes started being recognized as "Byju's classes", he thought of turning it into a venture. With great perseverance, he overcame challenges, especially in entering the school space. In this highly regulated system, marketing to students was difficult, but he kept moving forward taking one step at a time.

Initially, Raveendran didn't have any drive or passion to start a business, but when he started teaching, he realised that it was his passion and it gave him a lot of satisfaction and enjoyment. When his classes started creating an impact, he turned it into a business proposition and launched Think and Learn, the parents company of Byju's.

As a teacher turned entrepreneur, Raveendran not only has to create and deliver good courses, but also build and manage the team, strategize marketing campaigns, ensure quality, get continuous funding and scale the company.

Entrepreneurial Competency - Taking Initiative

Every person has certain dreams and ambitions in their life. To achieve them, it is important to try and work towards them. The beginning of trying something and working towards it is basically taking initiative. Initiative is defined as the ability or opportunity to assess, act or take charge on something. We can take the initiative to do something in different ways.

In the classroom, initiative can be taken by offering to assist the teacher in setting up the blackboard or presentation, writing comments on the board, contributing and presenting a new perspective to a class discussion etc. Initiative can also be taken outside the classroom, by getting involved in extracurricular activities, trying out a new activity, doing a project yourself etc.

When working in groups, initiative can be taken by taking on the challenging portion of a project, or offering to take the lead on the project and delegating tasks to others, or ensuring that certain timelines are followed for the project etc. Sometimes, part of taking initiative can also include noticing emerging issues, either in the organization of the project, or in the functioning of the team itself and attempting to remedy the situation; this also demonstrates problem solving and adaptability.

Entrepreneurship involves the willingness to take risks, be innovative, lead, develop, organize and manage a business venture. Entrepreneurship occurs when the initiative is taken towards to a project to turn it into a business venture. Thus, a sense of initiative and entrepreneurship refers to an individual's ability to turn ideas into action.

For someone to work towards building this competency, they have to start taking small initiatives within their existing environments. For example, if you join a club or group and have an idea for an activity, event or campaign, start it. If you have an idea but do not know what to do with it, start talking and discussing with people. If you want to try a new hobby outside your comfort zone such as playing an instrument, painting, dancing etc., go ahead and try it. If you want to solve a problem in your community, find a way and do it.

Taking initiative helps in:

- Becoming aware of one's own environment and community.
- Being able to identify and seize opportunities.

- Building confidence to take action.
- Contributing to a social or commercial activity.
- Pushing oneself out of one's comfort zone.
- Instigating development of other skills such as creativity, risk taking, critical thinking, problem solving etc.

Activity III

Have you taken initiative towards anything? Consider the following statements to think about it:

- Think about a time you went above and beyond what was expected of you.
- Think about a situation when you were creative. What did you do?
- Can you remember a situation when you took responsibility for something and had negative consequences? What did you learn from it?
- Have you ever noticed and raised issues in a project/activity/discussion?
- Think about a time when you worked on a group project and made improvisations in it.

Write a situation when you took initiative. Mention what you liked/disliked about it. Share your learnings (if any) from the experience.

This image shows a full page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no text or other markings on the paper.

Activity IV

Are there any activities/ideas/events/projects etc. that you want to try and have not got the chance to?

In the space given below, make a list of things you want to take an initiative for, in the next 1 to 5 years.

Entrepreneurial Competency – Information Seeking

In today’s world, information is a crucial to understand situations and make decisions. Information seeking involves searching for, looking at, and acquiring relevant information to develop a comprehensive understanding of material to analyse information and generate a result, idea or recommendation. It is an activity or process of trying to access or look for any data and information that is required in order to make decisions.

For modern business enterprises, information is vital in gaining a sustainable, competitive advantage. Effective business intelligence and decision making need an information system. Information seeking refers to getting information in both human and technological contexts. Once the information is accessed and acquired, it is analysed. Analysing Information involves breaking down an idea into components to determine the key elements and make assertions; examining data or information in detail to identify causes, key factors, recommendations and possible results.

In entrepreneurship, information seeking comes at every step in the process of building a business. Information is gathered from potential customers to assess if they would be willing a buy a particular product or service. Information is sought from mentors and advisors to understand how to move forward in progressing the business. Information is acquired from suppliers about materials, supplies, quotations, timelines etc. Thus, information is obtained from suppliers, customers, competitors and from any other relevant sources that enable the entrepreneur to make decisions and improvise.

For example, Mark Zuckerberg, the founder of Facebook, realized that he had to protect his business from being swallowed by investors. He knew he had to have money to bankroll his business. He sought advice of Peter Thiel and Peter also invested in his business. He also sought the advice of former Netscape CFO Peter Currie about financing strategies for Facebook. After the death of Steve Jobs, he accepted an interview said that Steve Jobs had advised him on how to create a management team at Facebook that was "focused on building as high quality and good things as you are". Thus, no matter how successful or how sharp an entrepreneur is, he/she still needs to seek for information to improve their business.

Activity V

Read the situations below and write answers to the questions given below:

- Who should the entrepreneur seek information from?
- What information should the entrepreneur acquire?

Simaya has started a company which makes bags and wallets using fish leather. Fish leather is made by using the waste material from the fishing industry. Simaya is trying to understand who her customers are. She is not sure if she should start selling the products online or supply to offline stores or do both. She does not know what will be the touch points where people could buy the products she is planning to design. She wonders what preferences and choices people would have.

Dhruv has started a brand that customizes kid’s shoes. While he has made sales on some online websites selling kids products, he is unable to make a sustainable profit. He is also looking for ways to raise some capital to start selling from his own website and retail store.

Janvi is thinking about starting a business that conducts training workshops for working professionals. She plans to teach business-related topics and develop employability skills through the workshops. However, Janvi does not know what kind of competition will be there. She wonders if she will be able to get enough customers to beat the competition in such a crowded space.

Goal Setting

Goal setting refers to establishing short or long-term objectives, usually along with incorporating deadlines and quantifiable measures to indicate if they have been achieved. For a business, the ultimate goal is to make profit. For a social enterprise, the ultimate goal might be to sustain itself and create the impact that it aims to. Entrepreneurs set various goals with different timelines. Each action and decision is taken to achieve a certain goal.

Goal setting ensures clarity of vision and mission, alignment of goals across the organization and making of purpose-driven objectives. It is important as it increases the probability of achievement of goals and encourages quality performance. It allows employees to be more proactive and structured.

In our everyday lives, we set different goals. Many students set goals about performing better in examinations. Some people set a goal to manage their weight and stay fit. Some set goals around learning a new activity or managing their existing resources etc. Similarly, in business goals are set around specific tasks and projects. For example, in marketing, the goal of what a campaign intends to achieve is laid out. In operations, some goals include managing costs and increasing efficiency. In finance, the goal might be to using the capital resources in an optimum manner for the right business activities.

SMART Goals

S.M.A.R.T. is an acronym for the 5 steps of specific, measurable, attainable, realistic, and timely goals. It’s a simple tool used by businesses to go beyond the realm of fuzzy goal-setting into an actionable plan for results.

Specific: Great goals are well-defined and focused. The moment one focuses on a goal, the goal becomes a magnet, pulling resources towards it. The more focused one’s energies, the more power one generates.

Measurable: A goal without a measurable outcome is like a sports competition without a scoreboard or scorekeeper. Numbers are an essential part of business. Concrete numbers should be put in the goals to know if one is on track.

Attainable: A goal must be achievable. Far too often, small businesses can set goals beyond reach. No one has ever built a multi–crore business overnight. Venture capitalists and angel investors discard countless business plans of companies with outlandish goals.

Realistic: Achievable business goals are based on the current conditions and realities of the business climate. One may desire to have the best year in business or increase revenue by 50%, but if a recession is looming and three new competitors open in the market, then the goals are not as per the realities of the market.

Timely: Business goals and objectives just don’t get done when there's no time frame tied to the goal-setting process. Every plan or project must follow a timeline. Whether the business

goal is to increase revenue by 20% or find 5 new clients, a time-frame or deadline to accomplish the goal must be set.

SMART goals help bring clarity to a broad goal and most importantly, track the progress of a specific task. This technique for goal setting can also be very useful when thinking about one's career and ambition. For example, if you set 'I want to start a business' as your goal, it is very broad in nature. Let's look at an example to make it SMART.

- Specific: To start a business, my idea is to make and sell handmade cards on Etsy.com
- Measurable: My target is to sell at least five cards in a week's time.
- Attainable: I will follow a step by step process to run the business, starting with setting up a store on Etsy, building an inventory of 30 cards and lastly promoting through referrals, word-of-mouth, local networking and building customer relationships.
- Realistic: I will be able to start a business and earn some money from my passion. I will use my current savings.
- Timely: My timeline is to start selling on Etsy within four weeks, with my target inventory ready in six weeks.

SMART Goal:

I am going to set up a store on Etsy.com that will sell handmade cards. Within four weeks, I will be able to get some financial benefit from my hobby. My target is to sell at least five cards per week, which should be achievable given that I will promote my business through local networking, word of mouth, referrals and by building good customer relationships. My inventory of 30 handmade cards has to be ready within six weeks, to help me achieve my target.

Activity VI

Let us do small exercises to understand SMART goals better.

Specific:

Look at the examples below. Underline the goals that are specific.

Get in shape.

I will go to the recreational centre Monday, Wednesday, and Friday at 6:00 a.m. and walk around the track for 30 minutes.

Get good grades.

I will sit at the table every day at 3:30 p.m. and work on assignments given that day in school until 4:30. Upon completion, I will place the assignments in the correct folder, take to school and turn in before class starts.

Get rich.

I will save 25% of my paycheck every month and invest in mutual funds until I am 55 years old.

Measurable:

The above examples give good indications. Write in the measurable outcomes from the above examples of #2, #4, #6.

- #2. _____
- #4. _____
- #6. _____

Attainable:

Which of these goals seem attainable?
Earn 10 times the money I make compared to this month.
Exercise daily for one hour.
Eat an apple a day.
Watch television for all night but wake up early every morning.
Live in Antarctica for a year, after I have lived in Mumbai all my life.

Realistic:

If I wanted to run a marathon and I haven't done any training, which goal would better represent my reality?

I will walk every day for 30 minutes for one week, jog for 30 minutes for two weeks, add five minutes to my work out every week until I reach 60 minutes and continue training for three months.
I will run the marathon on Saturday.

Timely:

Give yourself a deadline. When you have an end date, you will finish your goal. Look at the above examples (all of them). Write the goals that have a time frame.

Activity VII

Write an academic or personal goal below in the SMART manner:

S	–	My	SPECIFIC	Goal

M	–	How	will I	MEASURE my progress?

A	–	What	ACTIONS	must I take to accomplish this goal?

R – Is my goal REALISTIC and attainable? ____ Yes ____ No

T – Is my goal TIMELY? When will this goal be accomplished?

Decision Making

One of the most important traits of being an entrepreneur is being able to take decisions that more often than not, decide the fate of the company. At the helm of the company, entrepreneurs often have to take that one decision at the right time which can define the future of their company. And then they also have to quickly act upon their decisions.

Some decisions are more influential on the overall business processes, but some of them are small decisions without significant effect on the business as a whole.

Process of Decision Making

Recognize the problem or the gap: First things, first. Every decision-making process starts with the problem or some discrepancy that exist between the desired and current state. There is a desired state and an existing state. The difference between these two is the gap or problem that one must solve through the decision-making process.

Analyze the problem: After one finds possible problems that require solutions, one can start with the analysis of defined problems. At the end of this step, one will need to have a list of possible problems sorted by their urgency for the solution.

Define and analyze possible solutions: One needs to start brainstorming all possible solutions for a given problem. When one thinks about solutions, it is also important to think about the causes of the problems. After thinking of all possible ideas and solutions, they must be ranked and analysed to assess which one can serve as the best possible solution.

Select the best solution: The final result from the decision-making process is a selection of the best possible solution to the problem. The solution that one will implement for the given problem is basically the decision that one makes.

Implement the decision: One will need to implement the decision or solution and check the results to see if the specific solution really could solve the identified problem or not.

Activity VIII

Decision Making..... The Lunar Disaster

On April 11, 1970 astronauts James Lovell, John L. Swigert, and Fred W. Haise blasted off from Cape Kennedy aboard Apollo 13. At 54 hours and 54 minutes into the mission a large explosion crippled the spacecraft. Four days the attention of the world was riveted on the disabled spacecraft. Because of quick thinking and the use of computers, mission control was able to get the crippled spacecraft safely back to Earth.

In this activity, you are a member of the crew of a spaceship scheduled to rendezvous with the mother ship, located on the lighted surface of the moon. Due to mechanical difficulties, your ship is forced to land on the dark side of the moon, 200 miles (~ 322 km) from the mother ship. During the emergency landing much of the equipment aboard was damaged and since survival depends on reaching the mother ship, only the most critical items must be chosen for the 200 mile trip. Below is a list of 15 items left undamaged by the crash. Rank each of these items in order of importance from 1 the most important to 15 the least important.

Here is some background information, which may be useful. There is no atmosphere or water on the moon, and the moon has almost no magnetic field. A FM transmitter uses straight-line communication and has a range of less than 100 miles on the Earth, so on the moon the range would be considerably less. The gravity on the moon is 1/6th that of the Earth. The items below are in no particular order.

Item	My Ranking score)	(Individual	Group ranking (group score)
Box of matches			
Food concentrate			
Nylon rope, 50 feet			
Parachute silk			
Portable heater			
Two 0.45 caliber pistols			
Dehydrated pet milk, One case			
Two 100-Pound oxygen tanks			
Star Map-Moon Constellations			
Life raft			
Magnetic compass			
5 gallons of water			
Signal flares			
First-aid kits, injection needles			
Solar powered FM transmitter			

After ranking each item 1-15, get together with another student and re-rank the items remember 1 is the most important and 15 is the least important. With your partner(s) AGREE on a ranking (Do not change your individual score) and place the number under

group rank (each person in the group should have the same GROUP rank). After completing both individual and group ranking your teacher will give you the actual ranking determined by NASA.

To score subtract the difference between the number written with the actual number given by your teacher. Place the difference in the column labeled score (Individual and group)

After completing the scoring add up the numbers in each score column and place the total in the spaces below.

Individual score _____

Group score _____

Reflect on the decision-making process you followed.

Discuss why the scores increased or decreased after working together.

Discuss ways of thinking critically in the future.

Note: The answer key of actual ranking/score is given at the end of the chapter.

Team Building

Team building is any action or method that brings a group of individuals together and motivates them to work cooperatively as a team. It refers to the various activities undertaken to motivate the team members and increase the overall performance of the team. Teams are formed when individuals with a common interest come together on a common platform to achieve a predefined target. The main goals of team-building are to improve productivity and motivation.

The term “team building” has become a buzzword in recent years, and has many connotations. In terms of corporate development, team-building exercises are important not for the immediate experience of the activities performed by the team, but also for the group skills, communication and bonding that result. Other team building exercises include coaching, shared learning, group discussion sessions, goal setting and simply celebrating one another’s successes.

Benefits of Team Building

- Boosts morale and leadership skills
- Clearly defines objectives and goals
- Improves processes and procedures
- Improves organisational productivity
- Enables better communication
- Diminishes misunderstandings and judgments
- Urges self-awareness of one’s own and team’s strengths and weaknesses
- Cultivates problem-solving skills
- Incites creativity and innovation
- Breaks barriers within the team

Factors Influencing Team Building

An entrepreneur always looks for solutions. An entrepreneur always looks to forge ahead with his plans and his people. The first few years of being an entrepreneur, typically, are very frantic and hectic. That is where “Teams” come in. Teams are built to maximize the potential of the human resource at hand. Teams are sometimes created out of a specific need. Teams help to think of answers and provide the cheapest solutions available.

Some of the factors to consider when building teams are as follows:

Ambition: It is important that the team feels motivated to work towards the same ambition or goal. In team building, people who share the same amount of passion about the company’s mission and harness that energy to lead should be got on board. Without the burning desire to make things happen, the rate of innovation can really suffer.

Experience: By building out a team, one naturally drives a higher level of specialization and thus, needs to find people with experience and expertise within a particular domain. There is something to be said for hiring a team that has done it before. In the early stages of a business, the grittiness and get-it-done attitude is helps to reach milestones.

Alignment: The goals of the company must cascade down to the team and must be aligned with what they have control over. When a business succeeds, it must be ensured that the team also feels like they have succeeded. It is effective when everyone feels like they are having a meaningful impact on the results of the business.

Trust: A team should trust the founder and other members. Lack of trust within a team causes low reliance on one another for getting work done. It can also lead to blame game, low productivity, office politics, overburdening etc.

Style of Working: In addition to adding people with different skills, people with varied work styles and diverse backgrounds that complement the culture of the organization and rest of the team should be considered to brought on board. Diversity in thought and experience within a team tends to bring the best thinking and fastest pace of innovation, but can become difficult to manage.

Communication Skills: For smooth functioning of a team, each member must be consistent and clear in their communications. Clear communication helps everyone in the team to understand what’s expected and how it’s measured. It must also be ensured that no member offends the other.

Activity IX

For this activity, you have to work on the following problem:

How can the problem of waste generation be solved? This could include e-waste, plastic waste, greenery/kitchen waste, hazardous waste etc.

Get into groups of 7.

Take a piece of paper.

Any one member has to start with writing an idea to solve the problem on the paper.

Then, pass the paper to the next person in the group.

The next person has to build on the idea written by the first person and then pass it to the third person. The third person will then build on the idea written by the second person and so on.

This will continue once all people in the group have built on the idea of the previous person. The final idea will then be discussed and refined by the group and shared with the class.

Adaptability

Adaptability refers to displaying the capability to adapt to new, different, or changing requirements. It is the ability to think, draw conclusions, adapt to changes, and learn quickly. Adaptability is the capacity to adjust one's thoughts and behaviours in order to effectively respond to uncertainty, new information, or changed circumstances. Adaptability encompasses cognitive, behavioural, and emotional adjustments. As a disposition and skill, adaptability is essential to an individual's psychological health, social success, and academic and workplace achievement. Individuals who are adaptable exhibit key behaviours like thinking and acting effectively under pressure, and adjusting timelines, results, and expectations appropriately when change is needed.

Adaptability can be practiced in different ways. In general, students are expected to adapt to changes and learn new ideas relatively quickly for exams and real-world application. Self-studying is also a way to practice adaptability to test yourself on how well you can learn new concepts, draw conclusions, and generate your own examples. Adaptability can be exhibited in classroom during projects, when their trajectory changes. Group projects force students to adapt to different thinking and learning styles to effectively work together and build on each other's strengths. This also develops the skill of adaptability.

In business, adaptability becomes a survival skill as the nature of businesses is dynamic. Uncertainty around globalization, new technologies, market trends, etc., poses a tremendous challenge for applying the right business strategy. Everything changes with the speed of light so it becomes very difficult for entrepreneurs to craft strong strategies. Before planning and strategizing in the first place comes one essential management approach is adaptability.

Entrepreneurs are people who dedicate their lives to disrupt, pay the price and bring change and it is impossible to accomplish this without developing the trait of adaptability and persistence. Adaptability and persistence create amazing opportunities for entrepreneurs. All entrepreneurs, have to think of ways to embrace adaptability in their business, in terms of their business model, team, operations etc. This also creates the need for them to teach their team members, their customers and even their inventors to get comfortable with constant change.

Some ways to practice adaptability:

- Consider new ways of doing things
- Employ unique analyses and generate innovative ideas in complex areas
- Integrate seemingly unrelated information to develop creative solutions
- Develop innovative methods of obtaining resources when insufficient resources are available
- Discard approaches that are no longer working
- Be willing to change as the internal and external environment evolves

- Show tolerance learn to deal with ambiguous, unstructured situations
- Take effective action even without all the necessary facts in hand
- Change plans, goals, decisions, actions, or priorities to deal with unpredictable or unexpected events, pressures and situations when necessary

Activity X

In this activity, we will make a story using other classmates' inputs. To do this, please follow the steps given below:

Get in groups of 10.

Any one person in the group has to start a story from "Once upon a time....." and stop after speaking for around 1 minute.

As the first person stops, the second person has to continue the story started by the first person.

Similarly, after the second person speaks for 1 minute, the third person has to continue the story from where the second person stopped and so on.

This goes on until the story is completed by the tenth person.

After doing this exercise, reflect on the following questions:

Did you find challenging to adapt to someone else's story? Why?

What did you learn about yourself from this exercise?

On a scale of 1 to 10, how would you rate your skill of adaptability?

Barriers to Entrepreneurship

Recognizing a need and having an idea of how to fill the gap or need, are rarely a strong enough basis for launching a new venture, particularly if the entrepreneur needs to borrow capital. Most successful entrepreneurs also create a business plan, a formal document that contains a statement of purpose, a description of the products or services to be offered a market analysis, financial projections and some management procedures designed to attain the firm's goals. Before they can write a business plan, though, entrepreneurs must be aware of the barriers to entry.

Unsupportive business environment: Lack of supportive and market-augmenting governmental regulations serve as a barrier to entrepreneurship. For example, Russia leads all other large nations in having an unsupportive business environment because they lack rule of law, enforce regulations inconsistently, allow rampant corruption and bribing, allow regulatory authorities and inspectors to act in a predatory nature which therefore requires friendly ties with government officials and bureaucrats to smooth the way for businesses to operate.

Employee related difficulties: Building an employee asset base for the enterprise is one of the more daunting and sometimes overlooked tasks. Entrepreneurs must find and select the best-qualified employees who are motivated and willing to grow with the venture. Then they must ensure the employees do not leave. This task becomes a barrier when employee

expectations increase, governmental regulations related to labor employment are hardened, and employee costs grow.

Market entry regulations: Governmental rules, taxation, environmental regulations, lending requirements and licensing are all barriers to entrepreneurship. Most countries license market entry and the creation of new firms to protect incumbents in certain industries and professions. Other barriers to entrepreneurship are predatory tax behavior of authorities, lack of property rights and tax disadvantages.

Shortage of funds and resources: Finding the money to start up an enterprise is a leading barrier to entrepreneurship. Without funds, any person cannot begin to organize, train, develop and sell product.

Lack of Entrepreneurship Opportunities: Venture creation requires existing marketplace opportunities with possibilities known to the entrepreneur and favorable odds for success for entrepreneurial “spirit” to succeed.

Lack of Entrepreneurial Capacity: Entrepreneurial capacity is the existence of people with entrepreneurship qualities, willingness and motivation to initiate new ventures. Opportunities go untried until someone comes along with an eye for possibility and a can-do attitude. Some cultures may discourage entrepreneurial capacity resulting in a low rate of new firm entrance.

Lack of Adequate Entrepreneurship Training: Training and education can be a robust incubator for new ventures. This includes training in technical skills, managerial skills, entrepreneurial skills and entrepreneurship.

Lack of Appropriate Technical and Practical Skills: People tend to use the skills they have acquired to pursue entrepreneurial initiative. Lacking the appropriate skills and knowledge inhibits economic development.

Difficult Access to Market Experience: The essence of leadership is first learning and doing before leading. Therefore, the capability to start a business is propelled by previous education and work experience. Rushing into a new market because it looks attractive and rewarding without having some experience and background in it can be fatal. Experience in a related business before start-up is positively correlated to the probability of success.

Fear of Failure: Entrepreneurs have to decide whether to take action so they don't miss the boat, while knowing that hasty action may cause them to sink the boat.

Aversion to Risk: A psychological barrier closely related to the fear of failure is aversion to risk. Entrepreneurs must take initiative, create structure with a social-economic mechanism and accept risk of failure. Entrepreneurs have to be risk takers while those who are risk averse will seek the security in an existing establishment.

Identifying Fears

Fear is defined as an unpleasant feeling triggered by the perception of danger, real or imagined. It is a fundamental part of human psychology. Our brains are wired to feel fear because it helps us avoid calamity; it keeps us safe. But fear can also hold us back if we let it.

Fear feeds on fear, meaning the more we try to avoid something we're afraid of, the bigger and deeper our anxiety grows. To overcome this, we must face our deep-seated misgivings and worries. We have to acknowledge our fears and find ways to move beyond them.

In the process of entrepreneurship, many fears serve as obstacles in taking action. If entrepreneurs don't confront them, the fears can ultimately consume them. Some common fears seen in entrepreneurs are as follows:

Fear of failure: The fear of failure is like a tiny voice whispering into your ears that everything could go wrong in the business. The best way to overcome this fear is to accept that failure is possible, even for the most gifted entrepreneurs. With every failure comes an added value in strength, courage, wisdom and knowledge. Whenever you experience any setback, do a little soul searching to find out what mistakes were yours, why you made them and what you learnt.

The Fear of being wrong: This is also another common fear most entrepreneurs face when setting up a business. The fear of being wrong is a bit more subtle than the fear of failure, and therefore potentially deadlier. While the fear of failure can prevent you from starting a business, the fear of being wrong can cause you to pursue a foolhardy business strategy even when it's crystal clear that you need a change of approach. To overcome this fear, you need to first recognize this as a problem that can harm your business and put aside any ego that makes you stay on a course of action because you are emotionally attached to a certain way of doing things or getting results.

The Fear of not being an expert: Even though you probably know enough about your business or product to make important decisions or solve most of the nagging issues that may arise, many entrepreneurs still face the fear of not being considered as experts in their line of business. This fear, however minor it may seem, has a way of limiting your potential as an entrepreneur. For the things about a business one might not know, there is no shame in constantly learning and finding answers to them. Learning about the business is a continuous process that will surely lead to perfection in the long.

Fear of being pushed into uncomfortable situations: Many people fear public speaking more than death. Just the thought of it puts us on edge and makes us anxious. With practice, however, we can become comfortable pushing ourselves outside our comfort zones. But it won't happen without getting into the right mindset and prepping to take on this challenge. One can start by taking small steps and doing things just outside of their comfort zone.

Fear of taking risks: A risk can pay off with amazing success, or it can lead to a downward spiral and failure. But there is an important difference between dangerous, unmitigated risk and thoughtful, calculated risk. Dangerous risk takers are like gamblers, betting it all on something that isn't proven. With a calculated risk, you have strategized each step of the way. One must move incrementally towards their goal, carefully assessing their level of investment and overhead. Calculated risks are key to every success.

Fear of the unknown: Uncertainty registers in our brain like a blaring alarm. We often avoid the unknown because we fear change. We are afraid of losing control and being unable to manage potential outcomes. Allowing ourselves to take a massive leap into the unknown is terrifying because we have no guarantees of how things will turn out. The unknown will certainly lead to change of some kind.

Activity XI

Take 5 minutes to think about your future goal. Now make a list of things that you feel are certain obstacles in achieving your future goal.

Which of these obstacles make you feel negative emotions such as anxiety, stress, sorrow, tension, worry, helplessness etc.? Thinking about it, understand and identify certain fears you feel about your future life and mention them below:

Now, choose your biggest fear and write down ways to overcome it in the space given below:

Process of Entrepreneurship

There are various personal, social and environmental factors that play a role in whether the person pursues the idea or not. In entrepreneurship, the design thinking process of empathize, define, ideate, prototype and test (dschool.stanford, 2010) can be used to take action on your ideas.

Let us start by understanding how one can act on their idea and follow some steps in the entrepreneurial process.

Idea Exploration: Once you have an idea, you need to first understand how people, especially customers respond to it. Through your idea, you propose a solution or an answer. However, before that, understand what the problem or the question is. In order to understand the problem deeply, you have to talk to those who feel it is a problem for them. Interact with

and observe your potential customers and other people who can or will be affected if the idea turns into a business. In this process, the design thinking skill of empathy is extremely useful. Empathy is required to listen and understand the emotion of the person. In turn, it helps to dig deeper and identify the things that are not so obvious. Sometimes, there is a difference between what people say and what they actually do, thus, it is important to engage with the user and observe the behavior as well. Ask yourself what exactly your customers need and what problems are you solving for them. Conduct primary and secondary qualitative and quantitative research. Initial quantitative research can be done through market surveys and by modelling the choices of customers.



Data Analysis: Research conducted for your idea must focus on collecting data about customer problems and requirements, preconceptions, potential objections, preferences and a sense of price sensitivity. Apart from this, research about direct and indirect competitors as to what they are doing, what process do they follow, what kind of a customer base do they have, what is the market share etc. This will help you think about how your idea is going to be different. After collecting this data, analyze your discoveries, make sense of the information, look for insights and try to understand how your research has helped to refine your idea. The data analysis process helps you define the problem or need you are solving. Do a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis for the data collected.



Idea Development: After analyzing and synthesizing the data, you should get a clearer picture about the prospects of your business idea. At this stage, you start to challenge the assumptions that you had made when you came up with the idea and refine the idea. You might pivot from your original idea and find other interesting insights about customer problems or your research might show that your assumptions about customer needs are turning out to be true. In the first case, you start to build on the insight that you have gained and dig deeper into it by interacting with more people and then brainstorming ideas to solve the problem. In the second case, you start to think of solutions and build a model or a prototype of what your solution or business idea (product/service) would look like.



Experimentation: Experimentation refers to conducting small experiments to get customer feedback by giving them an understanding of what your product/service would look like. There could be innovative ways to conduct such experiments. For example, a business idea trying to solve the problem of children being scared of hospitals, doctor's clinic, medicines and injections showed an animated video in which the injection and medicines are talking to the child and playing around the doctor, to all children that visited a doctor's clinic in a day and recorded their responses. These experiments help you improve your initial prototype or model and keep improving it, taking into account customer feedback till you reach your final prototype. Research and prototyping helps you refine and shape your opportunity in a cost-effective manner before your initial market test. Only a market test can truly validate whether

your idea can be turned into a business. It helps to measure what you have created. Market tests start after the final prototype of the product/service has been designed. Market tests are most-effective once you have a minimum viable product. Entrepreneurs go through multiple escalating market tests, each building upon the previous test.



Business Planning: After conducting multiple market tests, you must have evidence of number of users that used your product/service and showed likeliness to use or revenue generated if you made any sales or took any pre-orders. Having this helps you conclude and prove that there is a demand for your business idea and it can be done in a viable way. Now, you develop your final product or service and start planning different functions of your business. You start by identifying what resources you would need for each business function to turn the idea into a business venture. You start to think about getting one or two people on-board who can help you grow your idea. The business plan is a written document that consists of an executive summary, market analysis, business description, details of product or service, marketing and sales, operations and team, financial statements, funding and development.



Marshalling Resources and Financing: After planning, it is important to work on marshalling and acquiring the resources as identified in the business plan. This would include physical, human, intellectual and financial resources. The key resources will depend on the type of business you are starting. There are various ways to finance, such as friends & family, forming a partnership, borrowing or debt financing from banks, crowdfunding on online platforms and equity financing. The financial statements in your business plan must include all the start-up costs you would incur. You must learn how to pitch your idea to investors. It is also important for you to compare different financing options and taking advice from experts. You would not want to give a very high stake of your business to the investor for very less money.



Launch: After fulfilling the needs of financing and business planning, you are ready to launch your start-up. In the initial stage, you hire more people, develop a customer base, build a network, adjust the marketing and operations business plan and start dealing with uncertainty. One of the most effective ways to promote your business during and after the launch is to talk the most about your business wherever you go. Apply for conferences, ted talks, forums etc. and share about your business venture.

Activity XII

Entrepreneurial Process is drawn out of the process successful entrepreneurs followed to execute their business idea. It is generic in nature. The exact process that one entrepreneur would've gone through might not be the exact process that another entrepreneur would've gone through. After reading the entrepreneurship process, you have to develop your own understanding of it.

Take a chart paper and in groups of 4, make a flow chart of the entrepreneurial process in your words. Then, draw a small version of the final chart in the space given below:

Business Planning

A business plan is a document that describes what a business plans to do and how it plans to do it. It is a written description of a business's future. It serves as a guide and a roadmap for a business and outlines its goals and details how those goals are planned to be achieved.

Thus, a business plan conveys business goals, strategies, potential problems and ways to solve them, the organizational structure, the amount of capital required to finance the venture and other such important information.

Business plans can help perform a number of tasks for those who write and read them. They are used by investment-seeking entrepreneurs to convey their vision to potential investors. They may also be used by firms that are trying to attract key employees, prospect for new business, deal with suppliers or simply to understand how to manage their companies better.

Components of a Business Plan

Executive summary:

Executive summary is like the first impression or the calling card of a business. It is the first thing that anyone reads or learns about one's business. It provides a brief and quick summary and overview of the entire business plan, covering key aspects such as the problem a business solves, the solution to the problem, the target market, key financial highlights, and a summary of who does what on the management team.

An executive summary has to be concise, succinct and hit the key highlights of the plan. While it is difficult to convey every thing one might want to convey in the executive summary, keeping it short is critical. Many potential investors never read beyond the executive summary and assess from the summary itself if the business interests them or not. Hence, it needs to be compelling and intriguing.

The Opportunity:

In this section, it is explained why one has a strong business opportunity. It describes the market, including market analysis, data, projections, descriptions, and competition.

Target market: As critical as it is that a business is solving a real-world problem that people or other businesses have, it's equally important to detail who is the customer. Understanding the target market of the business is key to building marketing campaigns and sales processes that work. And, beyond marketing, it is the target market that defines how the business grows.

Market trends: In this, the most important changes occurring in the different factors about the target market are described. The preferences, needs, demographics, or purchasing behaviours etc. of potential customers are mentioned and elaborated in terms of how they are changing. Ideally, it is explained how those trends would favor the products or services of the business over those of your competitors. For example, if people in the market is increasingly using their smartphones for tasks that they used to do on a computer, perhaps the mobile app is potentially well positioned to capture a bigger part of the market.

Market growth: In this section, it is explained how the target market has been growing or shrinking in recent years. Research done using internet searches, trade associations, market research firms, journalists or other credible sources to gauge market growth is mentioned. A growing market is encouraging, since it suggests stronger demand for a specific solution in the years to come.

Competition: A competitor analysis, in which names, location, products and services are given and compared to the products/services of the business. The objective of this analysis is to assess and exhibit the strengths of the business over competitors.

Products and services:

The products and services section of the business plan delves into the core of what one is trying to achieve. In this section, things that are detailed include the problem that the business is solving, how it is solving it, the competitive landscape, and the business's competitive

edge. Depending on the type of company you are starting, this section may also detail the technologies used, intellectual property owned, and other key factors about the products that a business is building now and planning on building in the future.

Business overview:

For external plans, the overview of the business is a brief summary of the business' legal structure, ownership, history, and location. It is common to include the vision and mission statements in the business overview, but that is certainly not a mandatory component of all business plans. The company overview is often omitted from internal plans.

Marketing and sales:

The marketing and sales plan details the strategies that the business will use to reach the target market. This portion of the business plan provides an overview of how the business will be positioned in the market, how the products and services will be priced, how its offerings will be promoted, and any sales processes that will be needed in place.

Operations:

Depending on the specifics of the business, plans related to locations and facilities, technology, regulatory issues etc. are included in this section. The entire process about how the business will source, function and deliver its core value is explained.

Milestones and metrics:

Plans are nothing without solid implementation. The milestones and metrics section of the business plan lays out concrete tasks that the business plans to accomplish, complete with due dates and the names of the people to be held responsible. It also details the key metrics that will be used to track the growth of the business. This could include the number of sales leads generated, the number of page views to the website, or any other critical metric that helps determine the health of the business.

Team:

The management team section of a business plan is especially critical for entrepreneurs seeking investment. The management team section includes relevant team bios that explain why the management personnel is made up of the right people for the roles. After all, good ideas are a dime a dozen, it is a talented entrepreneur and his/her team that can take those ideas and turn them into thriving businesses. Business plans should help identify not only strengths of a business, but areas that need improvement and gaps that need to be filled. Identifying gaps in the management team shows knowledge and foresight, not a lack of ability to build the business.

Financial plan:

The financial plan is a critical component of nearly all business plans. Running a successful business means paying close attention to how much money is being brought in, and how much money is being spent. A good financial plan goes a long way to help determine when to hire new employees or buy a new piece of equipment. Especially for startups seeking

funding, a solid financial plan helps to figure out how much capital the business needs to get started or to grow, such that there is knowledge about how much money to ask for from the bank or from investors.

A typical financial plan includes:

- Sales forecast
- Personnel plan
- Profit and loss statement
- Cash flow statement
- Balance sheet

Answer Key for Activity VIII

Item	Actual Score (Individual score)	(Individual	Actual Score	(group score)
Box of matches	15		15	
Food concentrate	4		4	
Nylon rope, 50 feet	7		7	
Parachute silk	8		8	
Portable heater	5		5	
Two 0.45 caliber pistols	11		11	
Dehydrated pet milk, One case	12		12	
Two 100-Pound oxygen tanks	1		1	
Star Map-Moon Constellations	3		3	
Life raft	6		6	
Magnetic compass	14		14	
5 gallons of water	2		2	
Signal flares	13		13	
First-aid kits, injection needles	9		9	
Solar powered FM transmitter	10		10	

Role of Green Jobs

Industry experts remain hopeful and excited about green jobs market, since industries are adopting large scale, energy efficiency measures. There are jobs in solar and wind installations, clean car engineering. Households are switching to solar energy, families are purchasing alternative energy cars, and new jobs are being added to the market place to meet the increasing demand.



Picture of coal miners

There is promising statistics in the green jobs industry. Clean energy has experienced incredible growth and success in the past decade and is poised to continue to grow in the coming decade; this will collaborate with business to advance policies that will do well to environment and economy. These technologies are not so costly also, thereby they are adapted widely.

Role of Green jobs in toxin free homes:

In our daily lives we do household work, that releases harmful gases into the atmosphere and contribute to the warming of our planet. Green jobs will promote the usage of ecofriendly raw materials and conserve energy.

The following is the list of steps; green jobs can take to reduce greenhouse gas emissions;

- Reuse, Reduce, Recycle
- Use less heat and reconditioning
- Replace your light bulbs
- Drive less drive smart
- Buy energy efficient products
- Use less hot water
- Use the off buttons
- Plant a tree.

Green jobs in Solar and wind power:

The green jobs are as follows;

Energy Auditors- they conduct audits determine how energy efficient the building/home are.

Chief Sustainability officers: they oversee green activities in their organization.

Wind/ Solar energy engineers: they design and develop wind farm systems

Role of green jobs in Water Conservation:

To protect existing and future water supplies, by ensuring that resources are not mismanaged, over exploited or otherwise used in manner that would be considered damaging.

The other jobs in water conservation are;

Water treatment specialist.

Water Auditor

Water policy Analyst

Water resource planning manager

Water Quality Monitoring

Water conservation Representative.

The above mentioned opening are anywhere, where there is a natural water supply for all users and future generations, identify potential problems to the ecology or environmental health and mitigate them.

Green jobs in waste Reduction Recycling and Reuse:

Eco cycle- zero waste creates jobs, recycling, composting and reusing create a lot green jobs. Recycling and reuse create at least 9 times more jobs than landfills and incinerators. E.g. we need force for collecting, processing and preparing materials.

Its common knowledge that recycling materials helps the environment by reducing waste..... depending on materials manufacturers can save up to 60% of their production costs by using recycled materials rather than obtaining, refining and extracting brand new substances ,e.g. paper, aluminum, plastics.

Green jobs in Tourism:

Indonesia is an example of green tourism. Green tourism is also referred as 'New experience economy', green tourism offers new tourism paradigm; we pay to do things, not to have new things. Tourists are buying experience not product. It promotes tourists to be prosumers, i.e. to care about the future. Green tourism makes an optimal use of environmental resources. The following are the principles of green tourism; Respect socio cultural authenticity of host country. Provide adequate wages and safe working conditions. Green jobs are required to plan;

- Destination management
- Destination managers.
- Trainers.

Green Jobs in building and construction:

Green buildings use ecofriendly materials, benefit environment by conserving energy. There are plenty of jobs in the construction sector, this sector employs millions of people, but suffers from a skill shortfall. Attracting talent and investment is a key challenge. Green building offers a chance to be part of the solution to global challenges.

The list of green jobs is as follows;

- Construction worker, crew member
- Designer
- Carpenters
- Building Planner and coordinators
- Insulators
- Weatherization
- Concrete labors
- Highway laborers
- Demolition experts

Role of green Jobs in limiting Green house emissions

The key to environmental protection is to prevent the degradation of the natural environment, which is important for all living creatures, one of the biggest problem in the environment is related to fossil fuels, which leads to pollution , climate change and natural resource depletion.

Green jobs are decent jobs that contribute to preserve or restore the environment, be they in traditional sectors, such as in manufacturing and construction sectors or in the emerging green sectors such as renewal able energy.

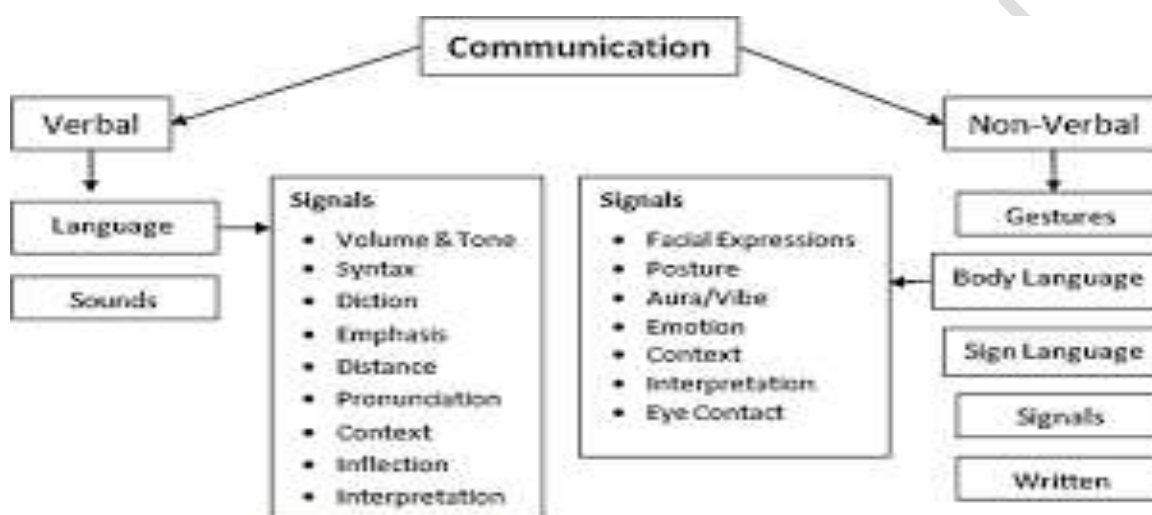
Communication skills

What is communication?

Communication is the act of conveying meanings from one entity or group to another through the use of mutually understood signs, symbols, and semiotic rules.

*The following figure represents types of communication

(Fig 1)



Learning objectives of Effective communication

1. Development of Interpersonal Skills
2. To express effectively & with maximum efficiency

What is Writing?

Writing is a form of communication that allows students to put their feelings and ideas on paper, to organize their knowledge and beliefs into convincing arguments, and to convey meaning through well-constructed text. In its most advanced form, written expression can be as vivid as a work of art.

Grade 12

1. Sentences-A sentence is a group of words giving a complete thought. A sentence must contain a subject and a verb.

The main focus here is to improve basic sentence composition skills. One can review the types of sentences and the functions of their component parts listed below.

Simple, compound, and complex sentences

a) Simple sentence-

A simple sentence is one independent clause that has a subject and a verb and expresses a complete thought. Notice that there are some important requirements for a simple sentence:

- Must have a subject and a verb.
- Must express a complete thought.
- Must only have one clause.

Examples

- I am out of paper for the printer.
- Will you help me with the math homework?

b) Compound Sentence

A compound sentence allows us to share a lot of information by combining two or more related thoughts into one sentence. It combines two independent clauses by using a conjunction like “and.” This creates sentences that are more useful than writing many sentences with separate thoughts.

Example of Compound Sentences

We use compound sentences all of the time. Here are some examples, the independent clause is green, the second is purple, and the conjunctions are orange:

1. I drove to the office, and then I walked to the cabin.

c) Complex sentence –

A complex sentence is a sentence that combines one independent clause with at least one dependent clause.

Example

- Although Rohan had some doubts, he found the courses very useful.

The above example is a complex sentence: it has a dependent clause (a subject 'Rohan' and a verb 'had'), followed by an independent clause (subject 'he' and a verb 'found') and forms a complete thought.

- Computers have come a long way since they first came on the market.
This example begins with an independent clause (subject 'computers' and verb 'have come') that forms a complete thought, followed by a dependent clause (subject 'they' and a verb 'came').

<https://study.com/academy/lesson/types-of-sentences-simple-compound-complex.html#lesson>

The link mentioned above will further will help the students to strengthen their concept on the above mentioned topics

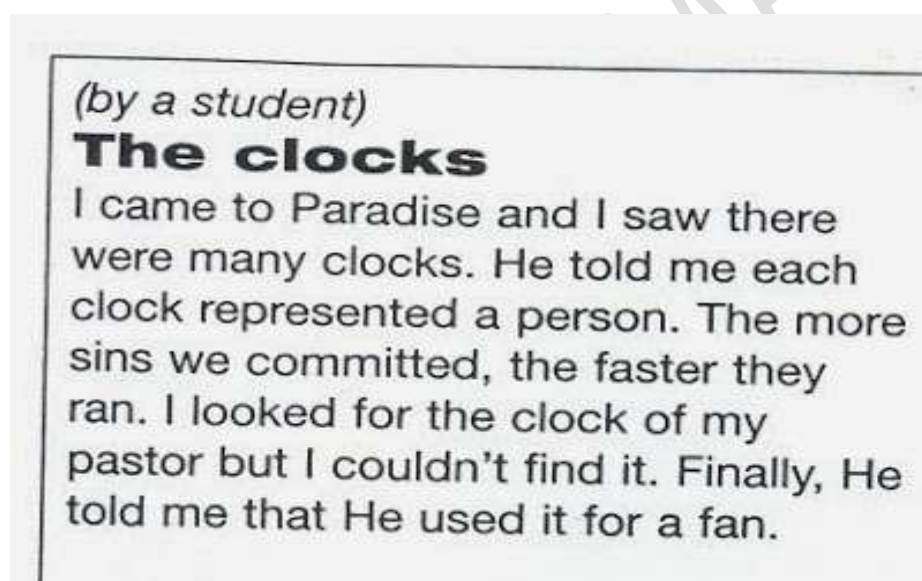
Writing skills

Activity- Mini sagas

Sometimes when we ask students to write a composition they spend very little time at the important editing stage. In this lesson students will do a couple of 'short writing' activities with the focus on editing and accuracy.

A mini saga is a piece of writing with exactly fifty words. It has to tell a story, have a beginning, a middle and an ending. Mini sagas were 'invented' by the Science fiction writer Brian Aldiss, who thought it would be fun and challenging to tell/write a story in very few words.

Students work alone to write a mini saga. First they should spend a few minutes thinking of what they are going to write about. The teacher will discuss few ideas on the board to help: A description of a favourite object, place, person; a joke, something funny or scary that happened with the student; a synopsis of a film they have watched or a book they have read; a letter to an old school teacher, friend or relative. Students write their first draft, then spend time editing, cutting out or adding words until the text has exactly 50 words



The above figure is an example of a **Mini saga**

It will help the students to learn how to **edit** their writing and to help students understand that 'quality' is more important than 'quantity' when it comes to writing and make them understand that 'quality' is more important than 'quantity' when it comes to writing

A worksheet can be taken up in the class to test the concept clarity.

Worksheet

Identify the following sentences as simple, compound or complex.

1. The production of a single pound of honey requires nectar from approximately two million flowers.
2. The vibrant trumpet-shaped blooms of the trumpet vine make it ideal for attracting hummingbirds.
3. We can watch the boxing match, which will be broadcast at nine o'clock, or we can view the documentary about the greatest innovations of the twenty-first century.
4. Russia has a variety of natural resources, including oil, natural gas, timber, iron ore, copper and lead.
5. The right hemisphere of the human brain typically controls muscle movement on the left side of the body.
6. Aaron has an unconventional swing, but he manages to drive the ball farther than some professional golfers.
7. During last night's thunderstorm, a flurry of tiny hailstones danced across the roof of our house.
8. An avid reader, Thomas attends weekly book club meetings, and he finishes several novels every month.

2. Phrases - Phrases are a group of words that work together to communicate an element of speech.

The following link further explains use of phrases in communicating better and with much ease.

Types of phrases

1. Noun Phrase

A noun phrase is any noun or pronoun along with its modifiers:

Example –

- The school children
- Yesterday's newspaper

2. Verb Phrase

A verb phrase is any number of verbs working together:

Example

- Had been sleeping
- Will contact
- May have written

3. Prepositional Phrase

A prepositional phrase always starts with a preposition and ends with a noun or pronoun (and its modifiers) that is called the object of the preposition:

Example

- Through the wheat field
- Preposition: through
- Object of the preposition: the wheat field

Some more examples of prepositional phrases:

- During the year
- Despite complaints

4. Verbal Phrases

There are three types of verbal phrases: participial phrases, gerund phrases, and infinitive phrases. Each is explained below.

a) Participial Phrase

Participial phrases start with either a present or past participle. Here are some examples of each.

Phrase with present participles:

- Watching silently

Phrases with past participles:

- Driven to succeed

b) Gerund Phrase

A gerund phrase is a present participle (and its modifiers) that acts like a noun. It can take on a variety of jobs in the sentence. Here are a couple of examples:

- Practicing helped a lot. (subject)
- I love reading. (direct object)

c) Infinitive Phrase

An infinitive phrase is the infinitive and its modifiers:

Example

- To sing
- To walk all that way

d) Appositive Phrase

An appositive phrase is a phrase that renames an earlier noun or pronoun

My best friend, **Nick Palacio**, loves scuba diving.

We watched Sirius, **the brightest star in the sky**

e) Absolute Phrase

Absolute phrases are the trickiest to identify. These phrases are not closely connected to the rest of the sentence; they don't describe a specific word, but modify the whole sentence. They add extra information and are usually separated by commas (or dashes).

Example

The semester finished, Karen sold all her textbooks.

Absolute phrase: The semester finished

A worksheet can be taken up in the class to further built up the concept

For each sentence, Identify the phrase and state its kind.

1. He was a man of great wealth.
2. The principal was an old man of friendly disposition.
3. The workers belonged to a tribe dwelling in the hills.
4. There I met a boy with red hair.
5. Only a man with plenty of money can buy a car of such beauty and power.
6. He was a young man of great promise. 7. He wore a turban made of gold.
8. He ran with great speed.
9. You can buy it in all places.
10. He replied in a very rude manner.
11. How does he live without any worries?



Writing skills - Branding and Brand names

It explores the theme of branding and brand names. Students will have an opportunity to read and discuss the context of a text and create and brand their own imaginary product.



It involves some discussion, reading and writing. It explores the area of 'brands' and the associations we have with particular brand names. Students will rank their favourite brand names and discuss what they like/dislike about them. They will read and discuss the context of a text about brand naming and complete related vocabulary building exercises. Lastly students will create and brand their own imaginary product which they will present to the rest of the class.

Example

Task 1: Reading

The name is the most important element of a successful brand. Packaging changes, advertising changes, products even change but brand names never change. Where do great brand names come from? For example, McDonald's is a family name, Adidas was created from the inventor's name Adi Dassler, Volvo means "to roll" in Latin.

Task 2: Discussion

Discuss the following questions in pairs:

1. Why are brand names important?
2. Name three different sources of brand names.
3. Do you think brands are important? Why?
4. Do you have a favourite brand? What is it and why do you like it?

Task 3: Mini write up

In pairs students will invent a new product and give it a name.

They will think about the following points:

- What is special or unusual about your product?
- Why would people want to use or buy it?
- How does the name relate to the product?

Once they have chosen a name for their product, they will prepare a short write to be given in front of the class.

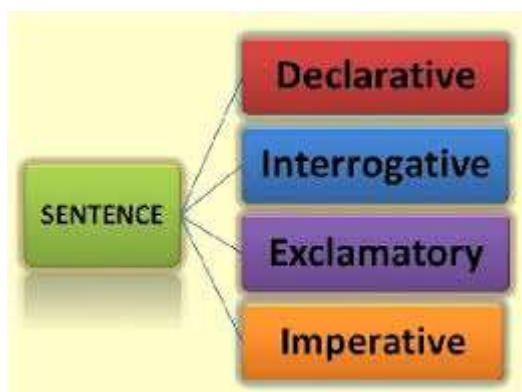
Here are some useful **phrases** that may help them with their presentation:

- **We would like to introduce our new product...**
- **We chose the name... because...**
- **You can use it to...**
 - Some of the idea for a new product

A digital watch with a built in mobile phone and mini-computer

A new digital homework personal organiser

3. Kinds of sentences –



In writing and speaking, there are four basic kinds of sentences:

- Declarative sentences
 - Interrogative sentences
 - Imperative sentences
 - Exclamatory sentences
- a) A **declarative sentence** is the most basic type of sentence. Its purpose is to relay information, and it is punctuated with a period. For example:

I walked home.

- b) **Interrogative sentences** interrogate, or ask questions. These are direct questions, and they are punctuated with a question mark. For example:
- Why haven't you completed your work?
- c) **Exclamatory sentences** are like declarative sentences in that they make a statement instead of asking a question, but their main purpose is to express strong emotion. They are easily recognized because they end in an exclamation point instead of a period: For example
- Wow, he just got an appraisal!
- d) **Imperative sentences** do not simply state a fact but rather tell someone to do something. These can be in the form of friendly advice, basic instructions or more forceful commands. For example:
- Turn left at the bridge.

➡ Using Different Sentence Types to Add Variety to Writing

Writing skill- Email writing

(Activity)

Students will learn the rules of writing emails and will compose and send an email. The main focus of this lesson will be on writing semi-formal emails.

Example

- The students will send a email to a language school offering part time language courses .

Some hints

- a) Do you do a part time course for school students, which helps them with their essay writing skills
- b) How many hours a week are the courses?
- c) What after-school activities are there? Will they help me to improve my communications skills?
- d) What is the actual cost of the course? Do you offer any scholarship?
*I'm hoping to join the course soon, so if you can get back to me as soon as possible, it would be great. Thanks for your help.

Format of a Semi formal E- mail

- ➔ Title (Dear Mr Banks, Dear Mrs Johns.....)
- ➔ Explanation - Reason for writing
- ➔ Paragraph 1 - First point with detail
- ➔ Paragraph 2 - Second point with detail
- ➔ Paragraph 3 - Third point with detail
- ➔ Closing sentence - (I hope this is acceptable.... e
- ➔ Signing off - (Yours Sincerely.... etc)
- ➔ Name (Made up - or your own)

This will help them to study the difference between writing a Formal, informal and semi Formal email writing using different kind of sentences.

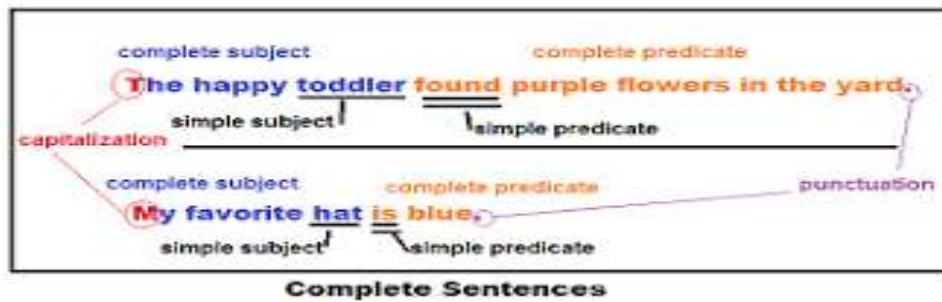
6. Parts of a sentence-

Every sentence can be broken into two parts

- a) Complete Subject
- b) Complete Predicate

The complete subject consists of simple subject (The noun or the pronoun is the subject is about) and its modifiers

- The complete predicate is made of up of verb and its modifiers.



The subject of a complete sentence is who or what the sentence is about, and the predicate tells about that subject.

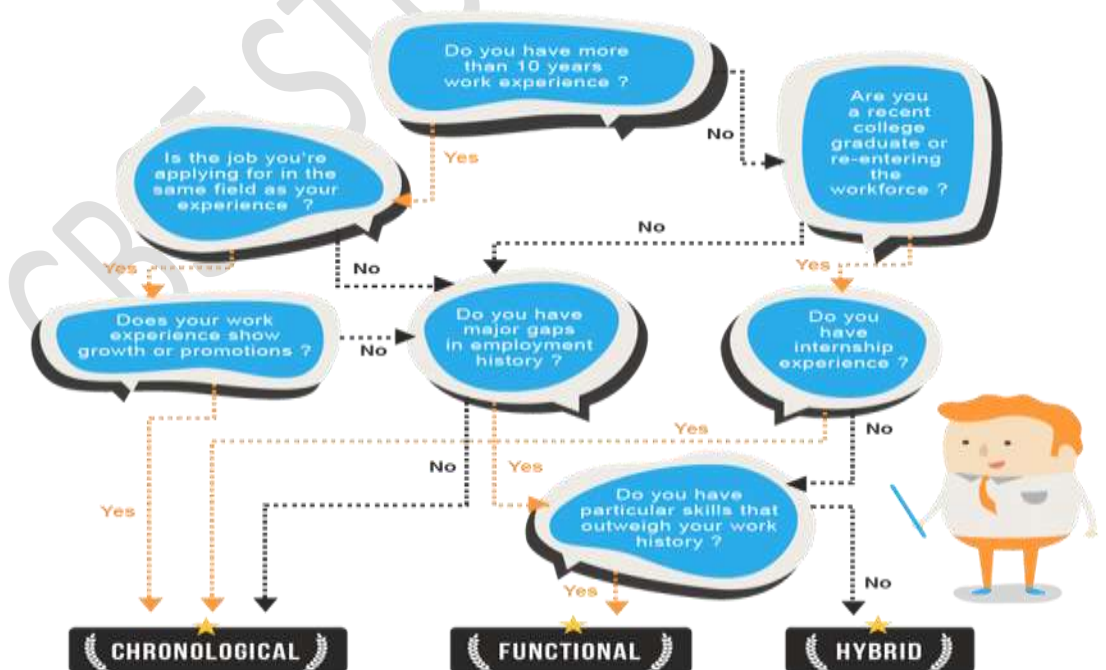
Yesterday after lunch **the students** **were complaining about the short recess.**

The students" are the subject (red) of the sentence. The predicate always includes the verb, and tells something about the subject; in this example, the students (purple)"were complaining about the short recess."

After explaining the concept of parts of sentence, an activity will be taken up to strengthen the topic.

Writing skills - Creating a professional portfolio

Finding employment can be challenging for anyone, but the job market can be especially tough for recent college graduates/ Undergraduates, people re-entering the workforce after time away, or someone who has been in a position for a long time. Competition is stiff; the market is filled with other strong job candidates, too. So how can students increase their chances for getting a great job in the field they love? For almost everyone, it starts with a resume (The following Flowchart will help the students to create a professional resume)



(Sample of Resume writing format)

Your Name Street Address • City, State or Province, Zip Phone Number • email_address@email.com	
Objective OR Summary <hr/>	
A resume Objective or Summary can help describe the value you bring to a prospective employer and entice a hiring manager to read your resume. Get help: www.squawkfox.com/2008/12/18/anatomy-of-a-killer-resume	
Professional Experience <hr/>	
Job Title Company and Location	Years
<ul style="list-style-type: none">• Action words + Keywords + Skills + Knowledge• Be specific by using numbers and percentages.	
Relevant Skills <hr/>	
Skill Group or Title: List skills here.	
Education <hr/>	
Example Education: B.Sc., Computer Science (High Honors), University of British Columbia, 2002.	

for freshers) Th The following link will further help the students to understand how to create professional resume better

(<https://youtu.be/VjdlraonW2s>)

5. **Parts of speech**- A category to which a word is assigned in accordance with its syntactic functions. In English the main parts of speech are noun, pronoun, adjective, determiner, verb, adverb, preposition, conjunction, and interjection.

The following figure represents **eight** parts of speech

The 8 Parts of Speech

Verb	An action; like run, jump, or read; or a state of being; like is or was.
Noun	A thing, or idea; rock, dog, John, democracy, birthday, gravity
Adverb	Tells how an action occurred; quickly, slowly, carefully
Adjective	Tells about a noun; big, red, Fred's
Pronoun	Used to replace a noun; it, I, them
Preposition	Describes relationships; on, over, for, beside
Conjunction	Joins words or phrases; and, or, because
Interjection	A word of surprise; Wow! Oh my!

www.HGPublishing.com/Grammar

1. **NOUN**- A noun is the name of a person, place, thing, or idea.

London, Flower, Happiness

2. **PRONOUN**- A pronoun is a word used in place of a noun.

She, we, they, it

3. **VERB**- A verb expresses action or being.

Jump, is, become

4. **ADJECTIVE** -An adjective modifies or describes a noun or pronoun.

Pretty, old

5. **ADVERB** -An adverb modifies or describes a verb, an adjective, or another adverb.

Gently, extremely

6. **PREPOSITION** -a preposition is a word placed before a noun or pronoun to form a phrase modifying another word in the sentence.

By, with,

7. **CONJUNCTION** -A conjunction joins words, phrases, or clauses. T

The young girl brought me a very long letter from the teacher, **and** then she quickly disappeared.

8. **INTERJECTION** - An interjection is a word used to express emotion.

Oh! Wow!

The following link will help to reinforce the concept

(<https://www.youtube.com/watch?v=v9fCKTwytJA>)

(Writing skill)

Activity

Adopt a word

Students will be given templates with a heading

Word	Meaning	Part of speech	Example of usage

- The students choose a word that they would like to adopt and do some research on it using the template above.
- Each student then gives a short presentation on his or her adopted word until all the class has had a chance.
- The words are then stuck to a large paper chart on the wall

In between we quizzes can be organised about the new words. The students greatly enjoy contributing words, researching and presenting.

This activity will help the students to streamline their thoughts and build up their vocabulary.

6. Article writing

Article writing is the process of creating a non-fiction text about current or recent news, items of general interest or specific topics.

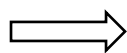
The following figure represents the format of Article writing

* Figure 5

Format of Article Writing

<p style="text-align: center;"><u>Topic of Article</u> (By: XYZ)</p> <p>(1.) Introduction of the topic (Meaning + Present Status)</p> <p>(2.) Causes of the topic (If it is a problem)</p> <p>(3.) Statistics of the topic (Problem) (If Known)</p> <p>(4.) Advantages/Disadvantages of the topic (Problem)</p> <p>(5.) Conclusion with warning/message/advice/Steps Required</p>
--

The following link will help to build up the concept



<https://youtu.be/q2197KT1iNE?list=RDQMaJwsUDCsYv4>

Example

You are Renu/Ronit. Write an article in 100-120 words for your school magazine on journalism as a career.

- Hints – Journalism suitable for those who are good at language'
- Ones who desire to present truth to the public

Activity

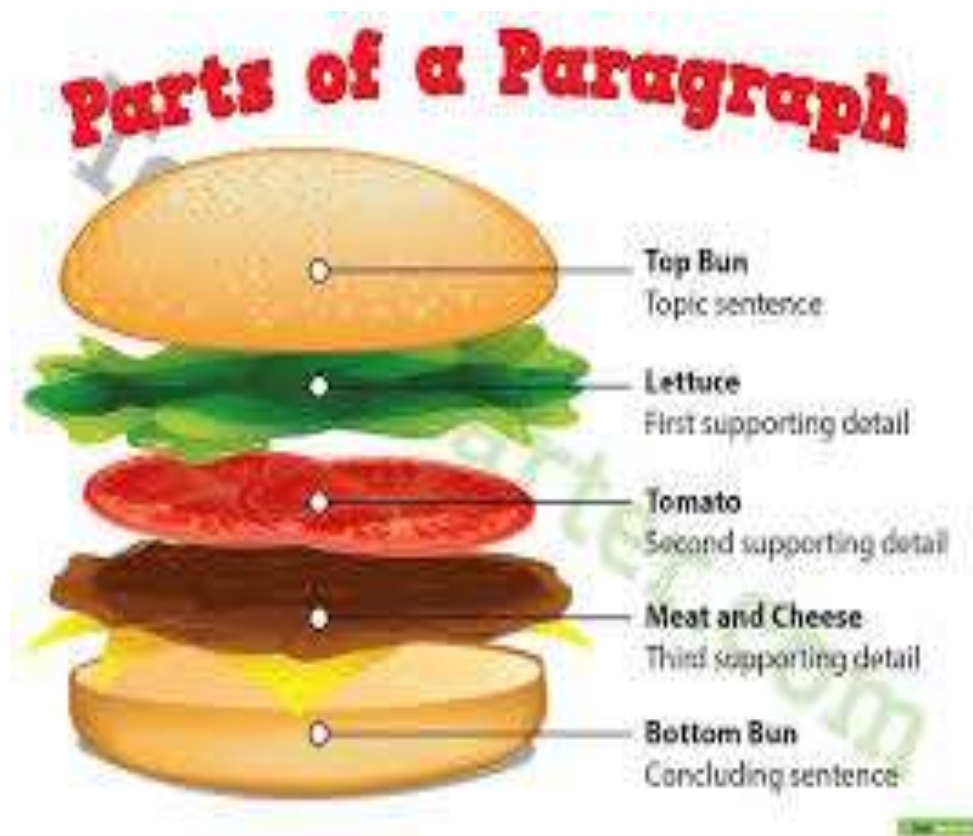
Media diary

Students write about the different 'media' that they have been watching or reading. This could include TV programmes, films at the cinema or on DVD, websites that they have been looking at, magazines, books, etc. This will help the students to have clarity about present day situations and organise their thoughts in a more constructive way.

5. Construction of the Paragraph

What is a paragraph?

A paragraph is a series of sentences that are organized and coherent, and are all related to a single topic.



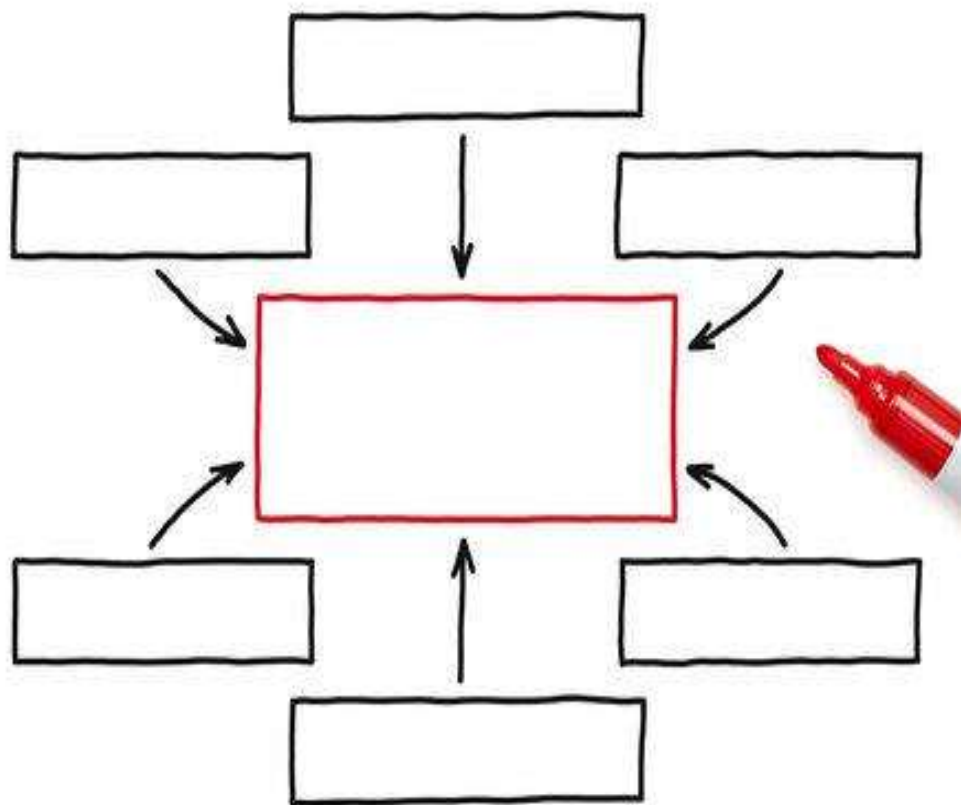
(Writing skill)

Activity – Argument essay

This activity will help students organise their argument essays and so improve their writing. A possible cause of the student's poor performance is that students do not know how to organise argument essays or paragraphs

Following points can help them(students) to write/pen down their thoughts in a constructive manner.

- Explain the overall organisation of an argument essay to students.
- Explain paragraph organisation.
- Give students a list of connectives which they could use in their essays. Make sure that they understand the relationships that are implied by these connectives.
- Give students a model argument essay. Once they have read it, ask them to draw a spider-diagram of the essay in the following way:



- Firstly, students will identify the thesis. They will write it in a circle in the middle of a blank piece of paper.
- Next, identify the claims or statements that are made to support this thesis. Students will write these around the thesis.
- Then they will identify and list the details and examples which are given to support each claim/statement.
- Finally, students will write relevant connectors between the thesis and the claims/statements and between the claims/statements themselves.

This activity aims to help student to recognise their own problems with paragraph construction and to identify errors, which improves their own re-drafting skills.

Summary:

A classroom environment relies heavily on the quality of communication taking place within it. As an instructor, taking steps towards improving the communication skills of students will contribute positively towards your classroom climate. Students with effective communication skills will be more likely to contribute to class discussions, will be more productive members in group projects, and will ultimately gain more from their experience in the class. Learning and practicing writing skills help students to handle professional and social tensions.

References

: Google

: You tube

: British council Library

References

: Google

: You tube

: British council Library

Communication - Describe the steps to active listening skills

Worksheet 1

Warm Up

A Listening Cues Game

In pairs take on the following roles:

Role Play: Learning about Active Listening

Phase 1

Student 1 Read a news article to your partner, Student 2 .

Read with proper expression and at a normal speed.

Student 2 Do not show your card to your partner!

You are a very poor listener. Display poor listening behavior .You are :

- fidgeting
- looking around
- interrupting to ask questions
- making inappropriate facial expressions.

Phase 2

Student 2

Explain /read the article that was just read to him, back to Student 1

Student 1

You should display positive listening skills. You are :

- making eye contact
- sitting still
- making appropriate facial cues

Communication - Describe the steps to active listening skills

- taking notes
- waiting until the end to ask questions.

Phase 3 All groups review the article together.

- identify things Student 2 missed because he wasn't listening closely
- demonstrate how important it is to use proper listening behaviors to understand the message being relayed.

B Listening With Distractions Game

Phase 1

- In groups of about 6 or more students play the following game:
- One student will play the role of teacher.
- Tell them you will read out a story (any story will do).
- Give one set of people on your left side a task.
- For example, ask them to count now many times you say the word "and."
- Ask others to count the number of times you smile.
- Give the other set of students on your right side no task at all, except to listen.

Phase 2

- Read the story.
- When you have finished, ask each group member to write down answers to three questions about your story.
- Find out which group answered better.
- You will find that the people who were distracted by a task may not answer the questions as easily as those who were listening without tasks.

Phase 3

All groups :Discuss how difficult it was for people to pay attention when they were not focused on the message itself.

C WARM-UP: TELEPHONE

Introduction :Stand in a circle. Explain that you will be playing the game of Telephone. Ask if any student is familiar with the game and would like to explain how to play.

1Start by whispering the following sentence into a student's ear: "I want to know what it feels like to listen and what it feels like to be heard."

2This first student will then whisper what they think they heard into the next student's ear. Students will repeat this process until the last person is reached. The last student will then say the word or phrase they heard out loud for the whole class to hear. More likely than not, the last student will have heard something totally different from the original message.

3a)Next sit in a circle and discuss the following:

- What happened to the original message?
- Was it easy or difficult to hear the message? Why do you think it might have been difficult?

b) Do you think the following reasons are correct?

- It was hard to hear because the person was whispering."
- "We weren't making eye contact."
- "Students were talking or laughing."
- "It's hard to understand an isolated word or phrase without any context; i.e., without context, words and phrases can sound like they come from out of the blue."

Worksheet 2

A Review the warm ups you did in Worksheet 1. Keeping the activities in mind as well as other factors discuss the following with your partner:

1 What is listening ?

2 How is it different from hearing ?

- a) Examine the sentences below and fill in the blanks with the correct word. Discuss what your choice of word tells you about the differences between hearing and listening.*
- b) In pairs, make a table listing the differences between listening and hearing.*
- c) Check the information given in Figures 1a and 1b. Add the new information to your table*

(i) I can't(hear/listen) you. Could you speak louder please?

(ii) My grandmother likes to(hear/listen) to the radio.

(iii) Did you(listen/hear) the thunder last night/

(iv) The vet is(hearing /listening)to the dog's heartbeat.

Figure 1a)

Figure 1 b)



3 Look at Figure 2. Using the information on how listening and hearing differ fill in the blanks with suitable words.

Figure 2

LISTENING VERSUS HEARING

Hearing is passive	Listening is active
Refers to the act of perceiving a sound through the ear	Refers to the act of making a conscious effort to perceive the sound
Does not require a conscious effort	Requires a conscious effort
Involuntary	Voluntary

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CS 11 Worksheet 3

1Examine Figure 3 .

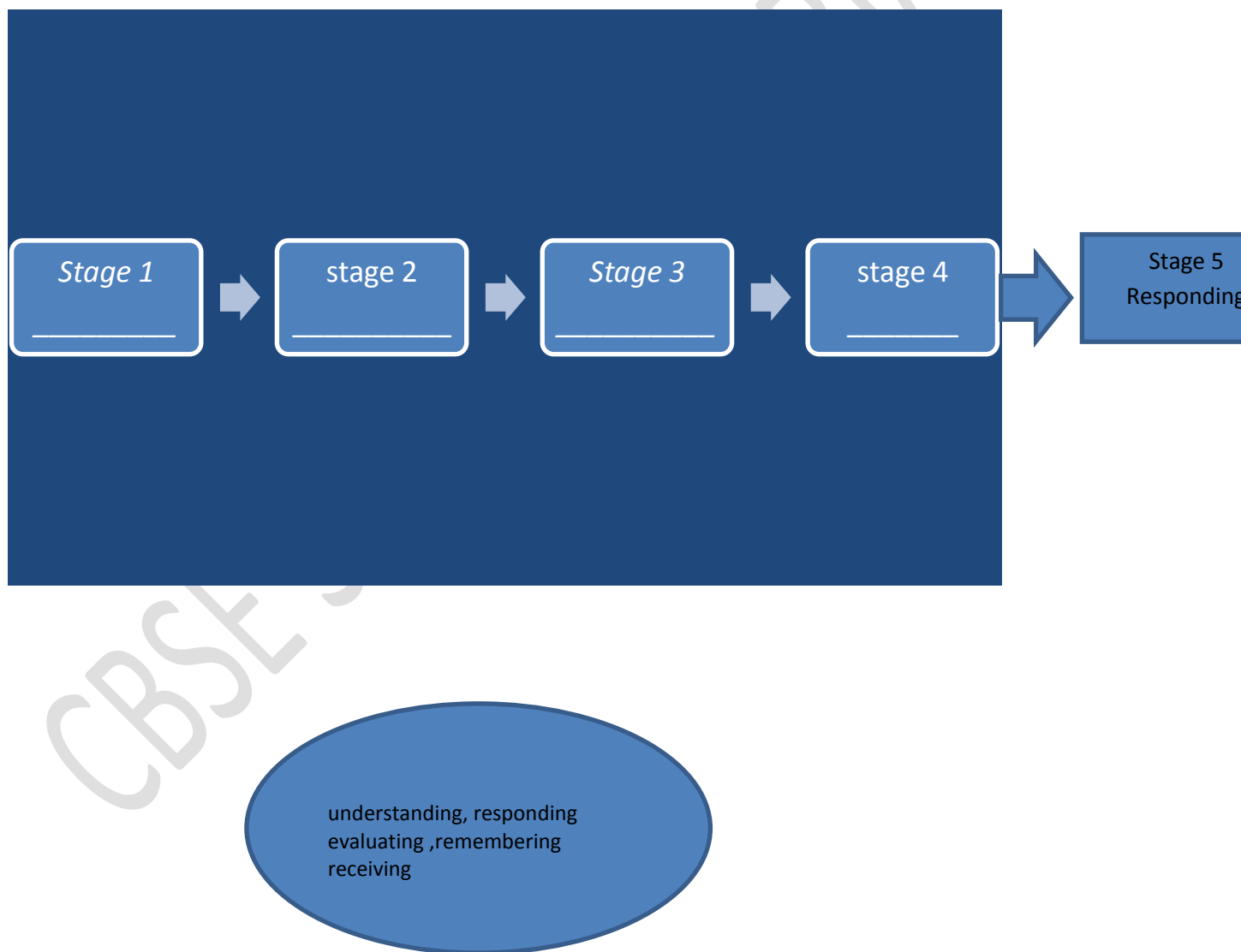
Communication - Describe the steps to active listening skills

Let us now think about the different stages of listening. listening

2 Using the words given in the box below complete the table.

3 Check your answers given at the end.


Figure 3



4 a) Look at Figure 4, column A and B. What are the 5 stages of Listening. Under Column A write the numeral 1-5 and in Column B write the name of each of the stages in the correct order.

b) Next, look at column C. It has the description of the 5 stages in jumbled order. Read carefully and match the different stages of listening listed in Column B with its corresponding description given in column C.

Figure 4

A	B	C
s.n	stages of listening	description of the stage
a) stage ?	_____ 	<ul style="list-style-type: none"> attempts to figure out the meaning of the message.
b stage ?	_____	<ul style="list-style-type: none"> receiver provides verbal or nonverbal feedback about the speaker or message.
c stage ?	_____	<ul style="list-style-type: none"> listener judges the content of the message or the character of the speaker
d stage ?	_____	<ul style="list-style-type: none"> this stage is represented by the ear because it is the primary tool involved with this stage of the listening process
e stage ?	_____	<ul style="list-style-type: none"> receiver either places information into long-term memory or forgets the information presented

Worksheet 4 What is Active Listening ?

A Read the following points which describe active Listening:

Communication - Describe the steps to active listening skills

1Active listening involves attentively seeking to understand a speaker's message, rather than passively hearing the words that a speaker says.

2Active Listeners provide verbal and nonverbal feedback to show their sincere investment in what the speaker is sharing.

3Active listening can help to build trust within a conversation, thereby allowing the speaker to communicate more easily, openly and honestly.

B Role Play :In pairs ,take on the following roles:

1)Teacher

- You have been teaching the student about how to conduct an interview..
- You have seen the video recording of the interview.
- You are now giving feedback and tips to your student on how to become an active listener.
- Enact your role by reading aloud the script below..

2)Student Interviewer

- You are passionate about becoming a television interviewer.
- You have recently taken an interview of an Alumnus who has excelled in Sports .
- The interview has been videotaped.
- You have come to your teacher for feedback.
- Enact your role by reading aloud the script below.
-

Script : Feedback on Active Listening

Teacher: Hello! I have watched the video of the interview you took. It's a good one! I saw you being an active listener. I was happy to see you using the techniques of being a good interviewer !

I noticed you leaned forward to show that you were interested !

And ,you were smiling while the interviewee talked. Good...these are examples of excellent nonverbal listening skills.

Student I wanted to ask one question? Is it okay to interrupt the person I am interviewing?

Teacher: No,no! Never interrupt. No matter how anxious you are to hear what someone has to say, you never interrupt.

Student : But I see this happening on Television all the time! Reporters interrupt and cut off people off all the time.

Teacher: Yes, I've seen that too! But remember you're not here to get someone to confess to wrong doing or moderate a political debate. You've asked a classmate to share a very personal story. Remember what I told you in class? A good interviewer knows that the people they interview are important and conduct their interviews with respect and

Communication - Describe the steps to active listening skills

sensitivity and curiosity.

So, even if the person doesn't answer the question you ask... let them finish their thoughts and don't interrupt them.

Let me tell a very good strategy that active listeners use...that is...to wait three to five seconds, counting quietly to yourself, before you ask the next question.

If you do this you might get some very interesting facts and details which you might have missed otherwise! So never forget the cardinal rule ...show your respect for the interviewer by never interrupting!

Student Oh thank you so very much Sir! I won't ever forget this advice! But Sir, how was my interview on the whole?.

Teacher: Overall, you did a great job!

You used body language to show that you cared about the interviewee without your having to speak.

You also had very good follow-up questions.

And you can only have good follow-up questions if you are listening to what a person is saying.

Remember: don't rush them, don't interrupt them. Let them finish their thoughts. But most important, while she's talking listen, listen, and listen.

Student Oh thank you Sir! I will remember these wonderful tips! Thank you!

Adapted from Transcript :Tips for Active Listening
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C Discuss the following :

1)Which of the tips given by the teacher were nonverbal strategies?

2)Which of the tips were verbal strategies?

3)What are examples of other tips for active listening?

4)Do you know how important the strategies of pause and short silence are in active listening ?
Use short silences and do not interrupt the interviewee while interviewing.

b) Role Play:In pairs interview each other, using the following prompt:

(i) Formation of pairs:Ask one student to conduct the pairing by counting off. For example, if there are 20 students, count off one to 10 and pair students who have the same number. If there are an uneven number of students, ask your teacher to participate.

Communication - Describe the steps to active listening skills

(i) ***Tell me something about yourself that might surprise me.***

(ii) While interviewing remember to practice using short silences. This means that whenever the narrator stops speaking, the interviewer should pause for six to eight seconds (counting quietly to themselves) before asking a follow-up question. During this period, the narrator is free to add any details to their story. The interviewer will then need to wait for another opportunity to ask a follow-up question.

(iii) Form Pair students up by counting off. For example, if there are 20 students, count off one to 10 and pair students who have the same number. If there are an uneven number of students, ask your teacher to participate.

Student 1 will tell their story for five minutes total, with Student 2 pausing before they ask any follow-up questions.

After you have interviewed for 5 minutes, switch roles.

Discuss :

1As the interviewer, how did it feel to pause before asking questions?

2Were the pauses helpful when you were telling your story?

3Did this listening exercise differ from the other peer interviews we have done in class? If so, how?

4Do you think people often use this method of 'short silences' in real life?

5What does it feel like when someone interrupts you?

6What do you think might cause someone to interrupt another person?

Worksheet 5 Why should you become an Active Listener?

5 a) Think of 5 important reasons why you should become an active listener? The visuals given below in Figure 5(b) are clues to the possible answers ..

Worksheet 4 Figure 5a

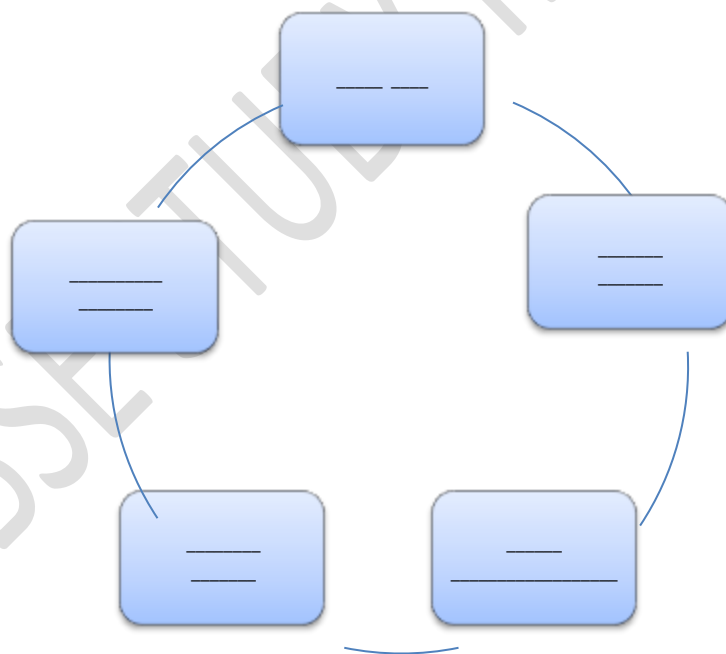


Figure 5b



Worksheet 5(contd.) Why is Active Listening Important for Interviews and at the Workplace?

adapted from **ALISON DOYLE**

5 b) Like [critical thinking](#) and [problem-solving](#), active listening is a [soft skill](#) that's held in high regard by employers. Active listening is extremely important for interviews and at the workplace your career.

1 An active listener does the following ;

- avoids interrupting at all costs
- summarizes and repeats back what he/she has heard
- observes body language to get an extra level of understanding.

2 Active listening is a helpful skill for any worker to develop for the following reasons:

- helps you truly understand what people are saying in conversations and meetings (and not just what you *want* to hear, or *think* you hear).
- can help build rapport with your interviewer.
- can redirect one's focus from what is going on inside one's head to the needs of the prospective employer or interviewer.

Communication - Describe the steps to active listening skills

- can help reduce your nervousness during an interview.

3 An active listener shows that he/she is :

- a) interested in the organization's challenges and successes;
- b) ready to help them problem-solve work issues, and
- c) a team player as opposed to being nothing more than a self-absorbed job candidate.

Remember the following:

- Don't interrupt, or worse, try to answer the question before you know what the interviewer is asking.
- Listen carefully to the interviewer's questions, ask for clarification if necessary, and wait until the interviewer has finished talking to r

5 c)1 Read about the 8 active listening techniques listed in column A:Each technique has an example given in Column B, but they are in jumbled order.

2 Match the techniques given in Column A with its corresponding example in Column B.

Number 4 i.e. brief verbal affirmations has been done for you

Worksheet 5 :Figure 6

s.n	A:Technique	B:Examples of Active Listening Techniques
1	Building trust & rapport	'How long do you expect your hiring process to last?' "What is your average rate of staff turnover?'
2	Demonstrating concern	Tell me more about your proposal to reorganize the department." "Can you please provide some history for me regarding your relationship with your former business partner?"
3	Paraphrasing to show understanding	"I was also very conflicted about returning to work after the birth of my son." "I had the responsibility of terminating four of my personnel, due to downsizing, over the last two years. Even if it's necessary, it never gets easier."
4	Brief verbal	Tell me what I can do to help." "I was really impressed to read on your

	affirmations	website how you donate five percent of each sale to charity.”
5	Asking open-ended Q’s	“So, you are saying that the uncertainty about who will be your new supervisor is creating stress for you.” “So, you think that we need to build up our social media marketing efforts.”
6	Asking specific Q’s, seeking clarification	I am eager to help you; I know you are going through some tough challenges.” “I know how hard a corporate restructuring can be – how is staff morale at this point?”
7	Waiting to disclose your opinion	“ I understand that you would like more frequent feedback about your performance.” “Thank you. I appreciate your time in speaking to me.” I see,. I understand..,Sure etc
8	Disclosing similar experiences to show understanding	I can see that John's criticism was very upsetting to you. Which aspect of his critique was most disturbing?” “It’s clear that the current situation is intolerable for you. What changes would you like to see?”

Tips for becoming an Active Listener!

- Don’t interrupt, or worse, try to answer the question before you know what the interviewer is asking.
- Listen carefully to the interviewer’s questions, ask for clarification if necessary, and wait until the interviewer has finished talking to r

Finally never underestimate the power of “soft skills” (also known as “people skills”) like active listening, problem-solving, flexibility, self-motivation, leadership, and teamwork. Your CV or resume may look great, but don’t forget to nourish your soft skills.

Especially for young, first-time job candidates with limited work experience, these people skills often are the deciding factor in whether an employer will be willing to take the risk in hiring

Communication - Describe the steps to active listening skills

them over others who may have more experience (but possibly weaker interpersonal communications talents). Don't forget to highlight your soft skills in your interview (and even in your resume).

5d Using all that you have learnt about Active Listening prepare posters on the following topics:

- (i) What is Active Listening?
- (ii) Why is Active Listening important?
- (iii) How to become an Active Listener?
- (iv) How to be successful in your interview?
- (v) Think of effective slogans to get your message across!

ANSWERS

Worksheet 2 Answers: Figure 2

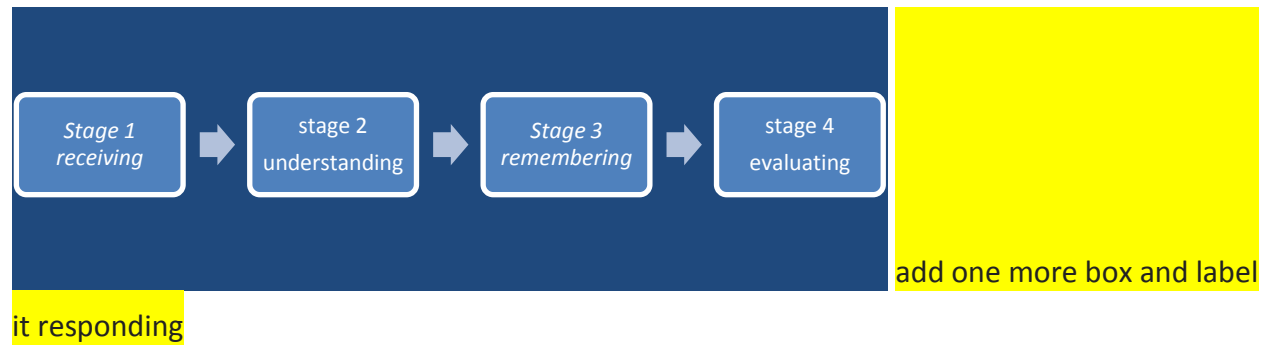
LISTENING VERSUS HEARING

Hearing is passive	Listening is active
Refers to the act of perceiving a sound through the ear	Refers to the act of making a conscious effort to perceive the sound
Does not require a conscious effort	Requires a conscious effort
Involuntary	Voluntary


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Worksheet 3 Answers: Figure 3

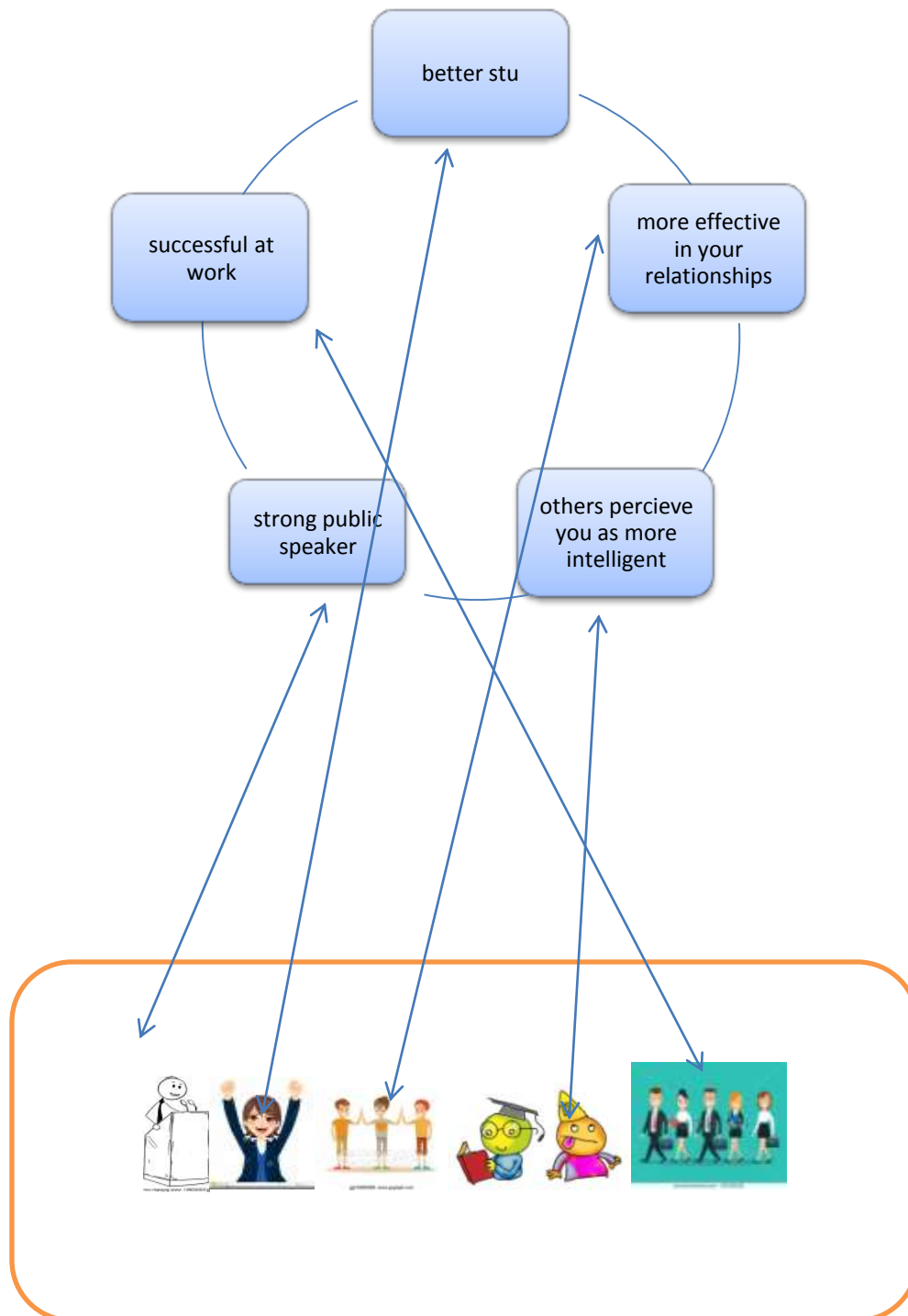
Communication - Describe the steps to active listening skills



Worksheet 4 Answers: Figure 4

A	B	C
s.n a) stage <u>1</u>	stages of listening <u>receiving</u> 	<ul style="list-style-type: none"> this stage is represented by the ear because it is the primary tool involved with this stage of the listening process
b stage <u>2</u>	<u>understanding</u>	<ul style="list-style-type: none"> attempts to figure out the meaning of the message.
c stage <u>3</u>	<u>remembering</u>	<ul style="list-style-type: none"> receiver either places information into long-term memory or forgets the information presented
d stage <u>4</u>	<u>evaluating</u>	<ul style="list-style-type: none"> listener judges the content of the message or the character of the speaker.
e stage <u>5</u>	<u>responding</u>	<ul style="list-style-type: none"> receiver provides verbal or nonverbal feedback about the speaker or message.

Worksheet 4 Answers: Figure 5



Worksheet 5 Answers: Figure 6

Communication - Describe the steps to active listening skills

s.n	A:Techniques	B: Examples of Active Listening Techniques
1	Building trust & rapport	'How long do you expect your hiring process to last?' "What is your average rate of staff turnover?'
2	Demonstrating concern	Tell me more about your proposal to reorganize the department." "Can you please provide some history for me regarding your relationship with your former business partner?"
3	Paraphrasing to show understanding	"I was also very conflicted about returning to work after the birth of my son." "I had the responsibility of terminating four of my personnel, due to downsizing, over the last two years. Even if it's necessary, it never gets easier."
4	Brief verbal affirmations	Tell me what I can do to help." "I was really impressed to read on your website how you donate five percent of each sale to charity."
5	Asking open-ended Q's	"So, you are saying that the uncertainty about who will be your new supervisor is creating stress for you." "So, you think that we need to build up our social media marketing efforts."
6	Asking specific Q's, seeking clarification	I am eager to help you; I know you are going through some tough challenges." "I know how hard a corporate restructuring can be – how is staff morale at this point?"
7	Waiting to disclose your opinion	" I understand that you would like more frequent feedback about your performance." "Thank you. I appreciate your time in speaking to me."I see,..I understand..,Sure etc
8	Disclosing similar experiences to show understanding	I can see that John's criticism was very upsetting to you. Which aspect of his critique was most disturbing?" "It's clear that the current situation is intolerable for you. What changes would you like to see?"

Worksheet 5 Answers: Figure 6

A:Techniques		B:Examples of Active Listening Techniques
1	Building trust & rapport	"Tell me what I can do to help." "I was really impressed to read on your website how you donate five percent of each sale to charity."
2	Demonstrating concern	"I am eager to help you; I know you are going through some tough challenges." "I know how hard a corporate restructuring can be – how is staff morale at this point?"
3	Paraphrasing to show understanding	"So, you are saying that the uncertainty about who will be your new supervisor is creating stress for you." "So, you think that we need to build up our social media marketing efforts."
4	Brief verbal affirmations	" I understand that you would like more frequent feedback about your performance." "Thank you. I appreciate your time in speaking to me." "I see,..I understand..,Sure etc
5	Asking open-ended Q's	I can see that John's criticism was very upsetting to you. Which aspect of his critique was most disturbing?" "It's clear that the current situation is intolerable for you. What changes would you like to see?"
6	Asking specific Q's, seeking clarification	"How long do you expect your hiring process to last?" "What is your average rate of staff turnover?"
7	Waiting to disclose your opinion	Tell me more about your proposal to reorganize the department." "Can you please provide some history for me regarding your relationship with your former business partner?"
8	Disclosing similar experiences to show understanding	"I was also very conflicted about returning to work after the birth of my son." "I had the responsibility of terminating four of my personnel, due to downsizing, over the last two years. Even if it's necessary, it never gets easier."

Unit 1 Spreadsheet Software

Session 1 Introduction to Spreadsheet software

OpenOffice Calc is a spreadsheet program, a part of the free OpenOffice suite. The program is easy to use and contains most of the commonly used features found in commercial spreadsheet programs.

OpenOffice Calc is software that helps in performing calculations using formulae and in analysing data.

ADVANTAGES OF SPREADSHEETS

Spreadsheet programs have become very popular because of the following features:

- Built-in functions make calculations easier, faster, and more accurate.
- Large volumes of data can be easily handled and manipulated.
- Data can be exported to or imported from other software.
- Data can be easily represented in pictorial form like graphs or charts.
- Formulae are automatically recalculated whenever underlying data values are changed.

STARTING OpenOffice Calc

To start OpenOffice Calc:

1. Click **Start** ➤ **All Programs** ➤ **OpenOffice 4.1.5** ➤ **OpenOffice Calc**. (Fig 1)
2. A spreadsheet workbook named Untitled1 opens up in an OpenOffice Calc application window (**Fig. 2**).

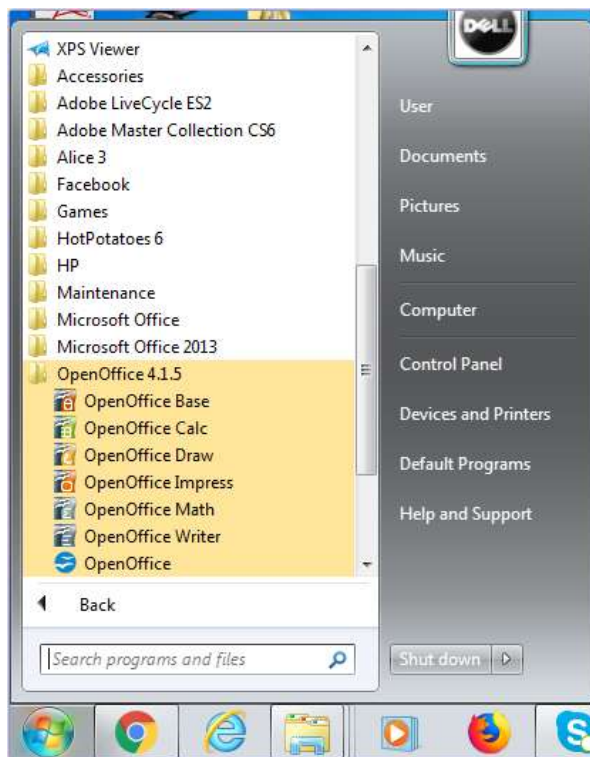
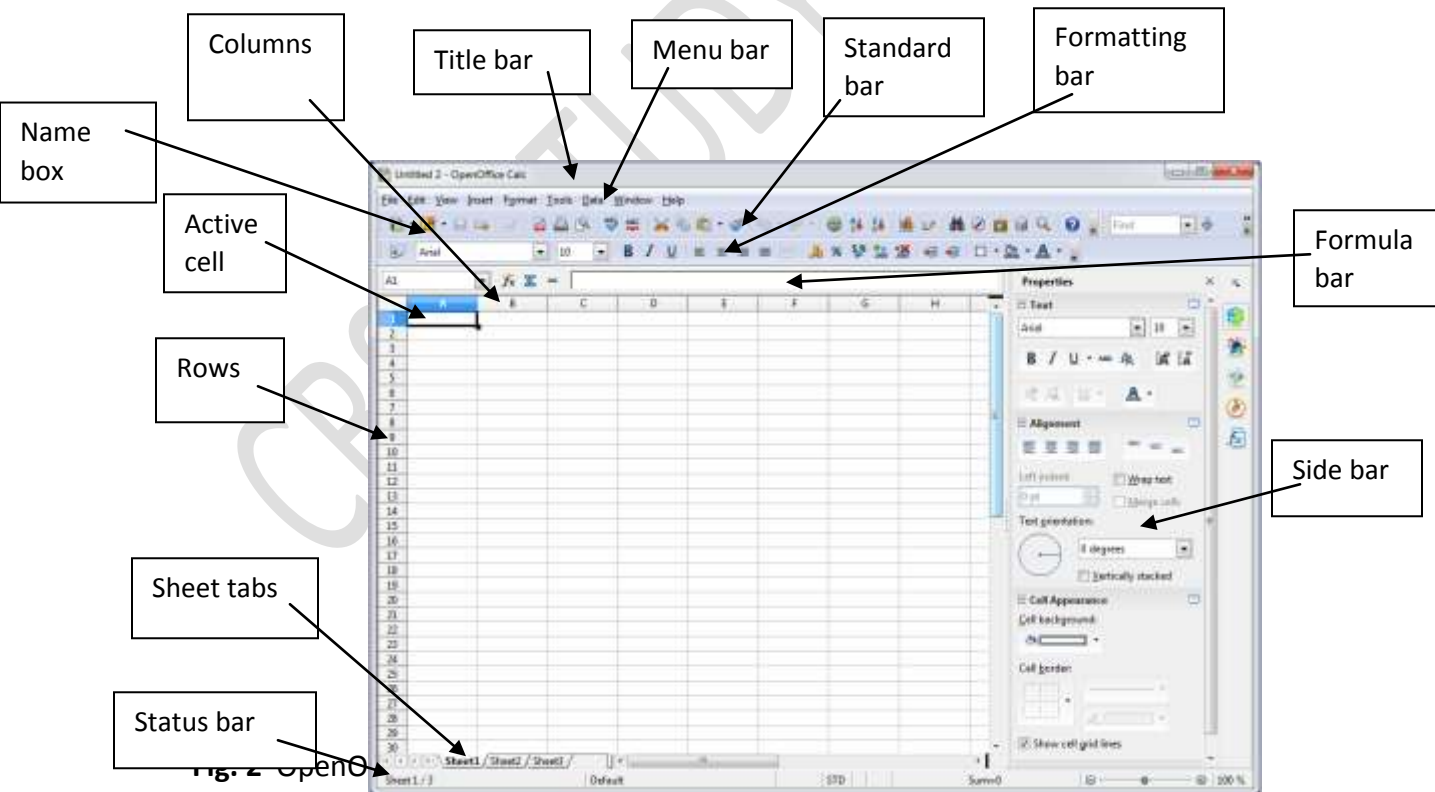


Fig 1 Starting OpenOffice Calc



Components of a Calc Screen

Title bar The title bar is located at the top of the Calc window. It displays the name of the workbook on which you are currently working. A workbook is a collection of one or more worksheets. The right side of the title bar contains the **Minimize**, **Restore Down** or **Maximize**, and **Close** buttons.

Menu bar The menu bar has commands like File , Edit, etc. Clicking on each menu option displays a list of commands.

Standard bar This bar contains icons (buttons) to provide quick access to commands such as **New**, **Open**, **Print**, **Copy**, and **Paste** etc.

Formatting bar It has buttons and drop-down menus that allow you to select a formatting option like, font, font color, alignment, number format, border, and background color.

Formula bar It contains the **Name Box** and a long white box, known as the **Input line**.

Name Box It is present to the left of the Formula bar and displays the address of the selected cell.

The rest of the window contains the spreadsheet. It is divided into rows that have a number at the left of each row, and columns with a letter at the top of each column.

Worksheet tabs A workbook, by default, opens three worksheets named as **Sheet1**, **Sheet2**, and **Sheet3**. You can click any sheet tab to open that worksheet. To insert a new worksheet, the steps are:

1. Clicking the empty area after the sheet tab.
2. The **Insert Sheet** dialog box appears. (**Fig 3**)
3. Select the required option and click **OK**



(Fig. 3). Fig 3 Inserting a new sheet

Rows and columns A worksheet in OpenOffice 4.1.5 Calc has 1,048,576 rows and 1,024 columns. The rows are numbered from top to bottom along the left edge of the worksheet as 1, 2, and so on.

Columns are labelled from left to right with letters A...Z, AA...AZ, A...BZ...AAA...AAZ, ABA...ABZ...AMA...AMJ.

Cell A cell is formed by the intersection of a row and a column. Each cell has a unique address which is formed by the intersection of row number and column letter. For example, a cell formed by intersection of column F and row 5 will have address F5.

Data Types

You can enter numbers, text, and formulas in a cell.

Entering data

To enter data in a cell,

1. Select the cell.
2. Type the content.
3. Press ENTER key.

To cancel the data you have entered before pressing the ENTER key, press the ESC key.

Creating a New Workbook

The steps to create a new Calc workbook are:

1. Select **File** ➤ **New** ➤ **Spreadsheet** (Fig. 4).

Or

Click the **New Document** drop-down menu arrow on the **Standard** bar and select **Spreadsheet**. (Fig 5)

Or

Press **CTRL + N**.

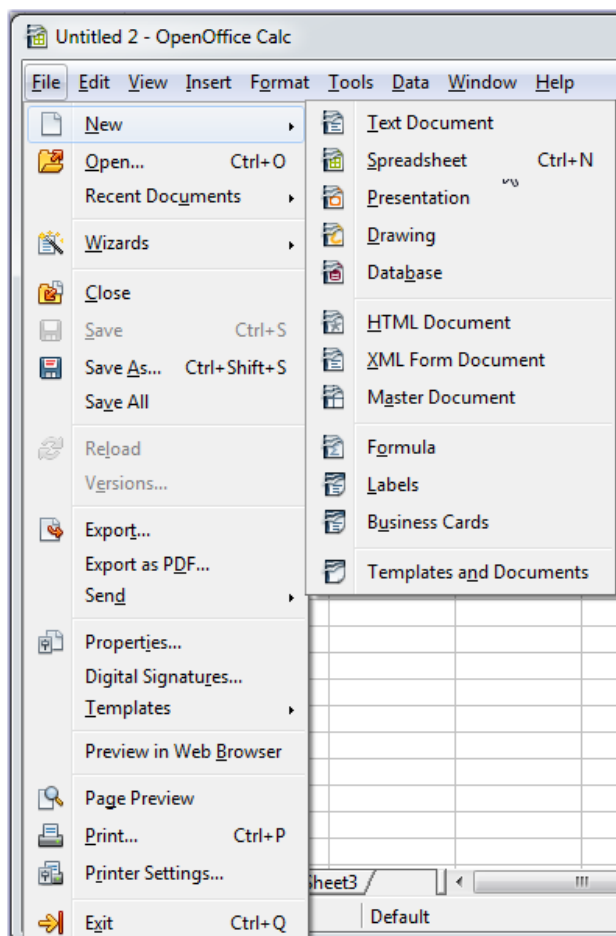



Fig. 4 New option in the **File** menu

New button on
Standard bar



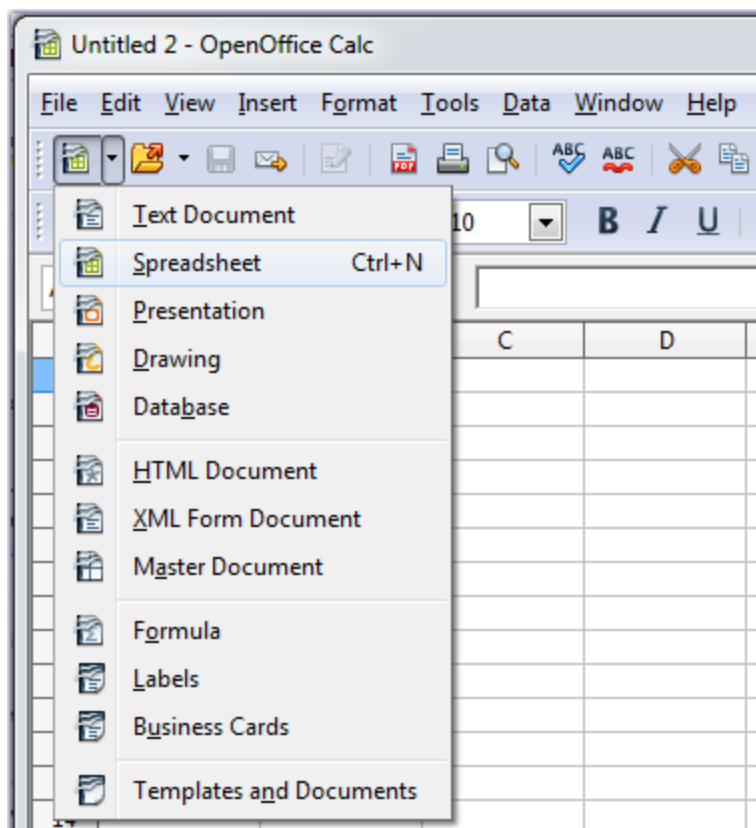


Fig 5 New button on Standard bar

Saving a Workbook

To save a workbook:

1. Select **Save** option from **File** menu.

Or

Click the **Save** icon on the **Standard** bar.

Or

Press CTRL + S.

If you are saving a workbook for the first time, a **Save As** dialog box will appear **(Fig. 6)**.

2. Type a file name and choose a location to save the file. Notice that the file extension is *.ods*.

3. If you want to save the file in the Microsoft Excel file format, change the **Save as type** to Microsoft Excel 97/2000/XP (.xls). **(Fig 7)**

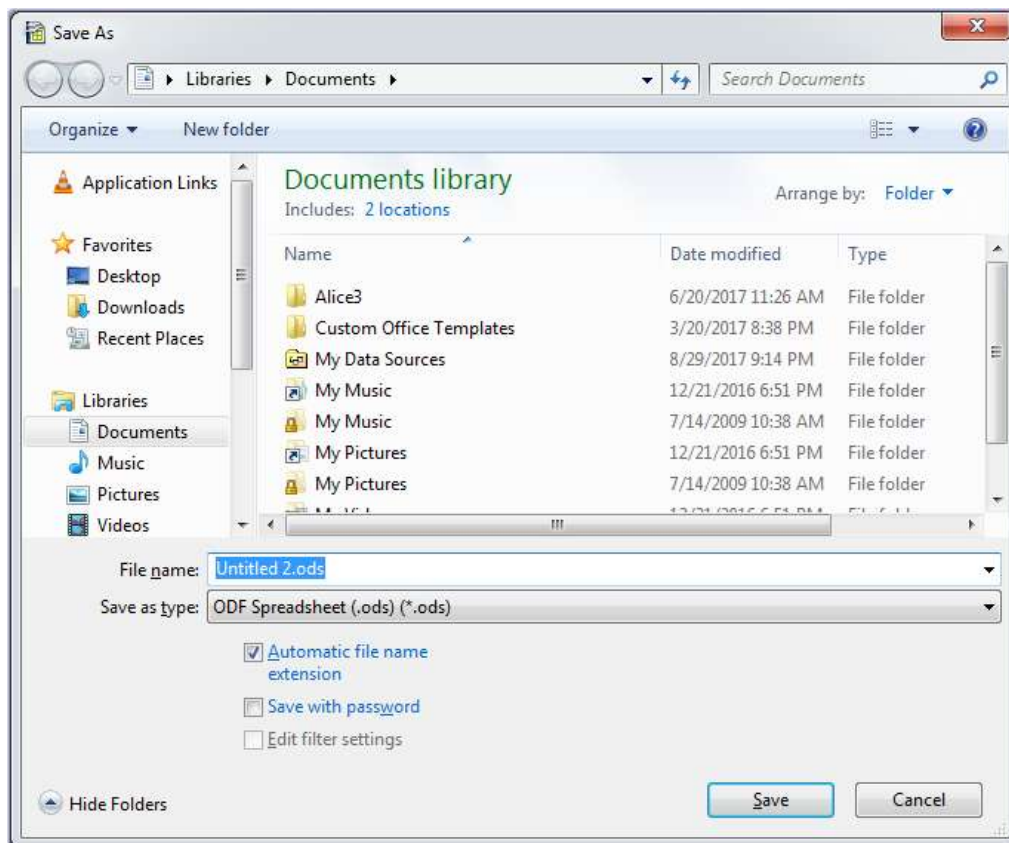


Fig. 6 Save As dialog box

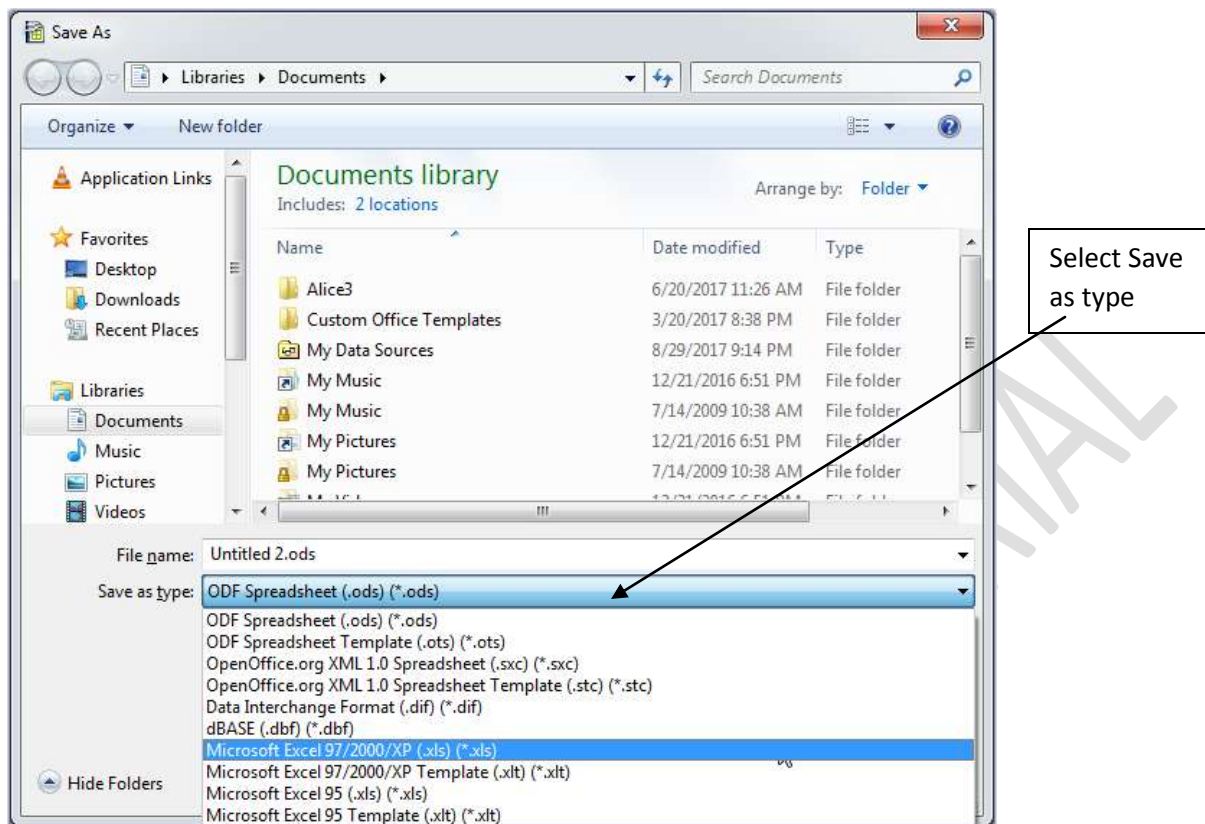


Fig. 7 Save As dialog box

SELECTING CELLS

Before performing any operation, like, making text bold, changing text color, etc, on a range of cells, you need to select the range.

A range is a rectangular block of contiguous cells, i.e., cells that touch each other, especially along a line.

You can select range of cells in any one of the following ways:

- Using the mouse
- Using the keyboard

Using the mouse

To select a range of cells using the mouse, the steps are:

1. Click the cell you wish to start your selection from.
2. Bring the mouse pointer to the bottom right corner on the black square. Click and hold the left mouse button down, drag the mouse pointer (a thick plus sign will appear) to the diagonally opposite corner cell.

For example, if the range A1 to D3 is to be selected, place the mouse pointer at cell A1. Hold the left mouse button down and drag it to the cell D3. The range A1 to D3 is represented as A1:D3.

When you select the range, all the cells appear highlighted (**Fig. 8**).

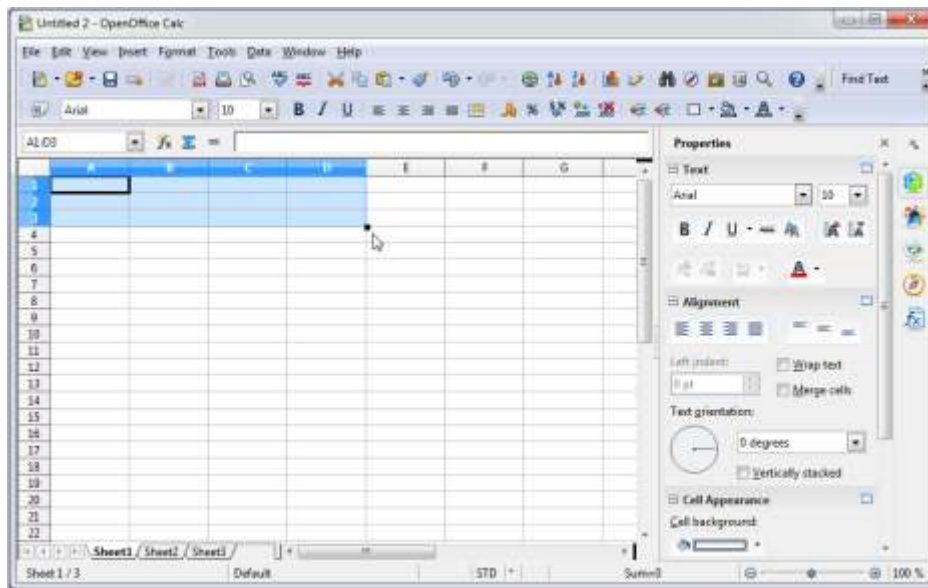


Fig 8 Selecting range using mouse

Using the Keyboard

To select a range of cells using the keyboard, do the following:

1. Place the cell pointer at one of the corner cells of the range to be selected.
2. Press the SHIFT key and move to the diagonally opposite corner cell using the arrow keys.
3. Release the SHIFT key when the required range has been selected.

Selecting Multiple Ranges Simultaneously

To select multiple ranges, do the following:

1. Select the first range of cells.
2. Hold the **CTRL** key and select another range of cells.
3. Repeat step 2 to select more ranges if required (**Fig. 9**).

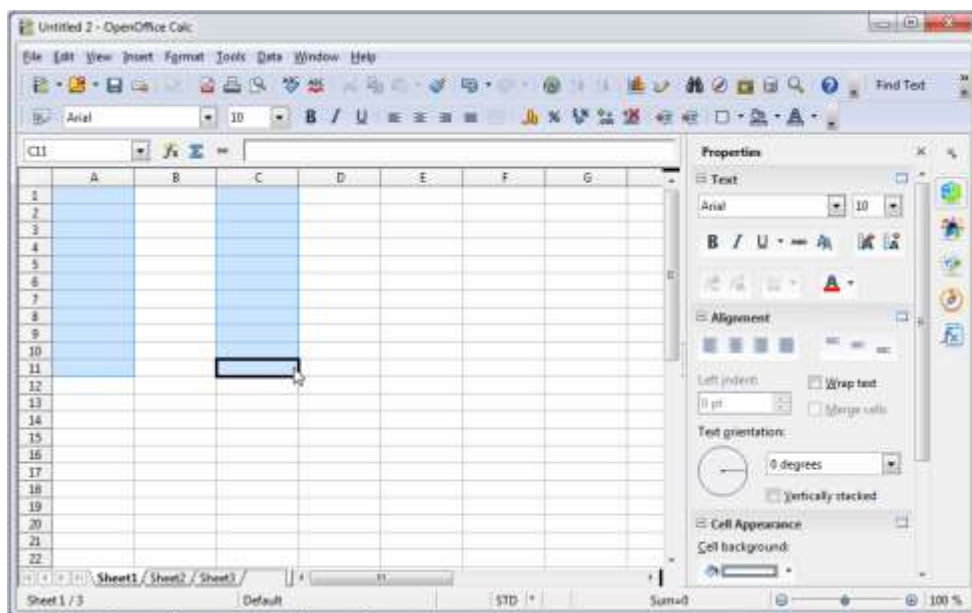


Fig 9 selecting multiple range of cells

Selecting the entire row

To select the entire row in which the cell pointer is positioned, do any one of the following:

SHIFT + SPACEBAR

Or

click the row heading.

Selecting the entire column

To select the entire column in which the cell pointer is positioned, do any one of the following:

CTRL + SPACEBAR

Or,

click the column heading.

Selecting the entire worksheet

To select the entire worksheet:

CTRL + A

Or,

Click the blank button (called the *Select All* button) at the junction of the row and column headers.(Fig 10)

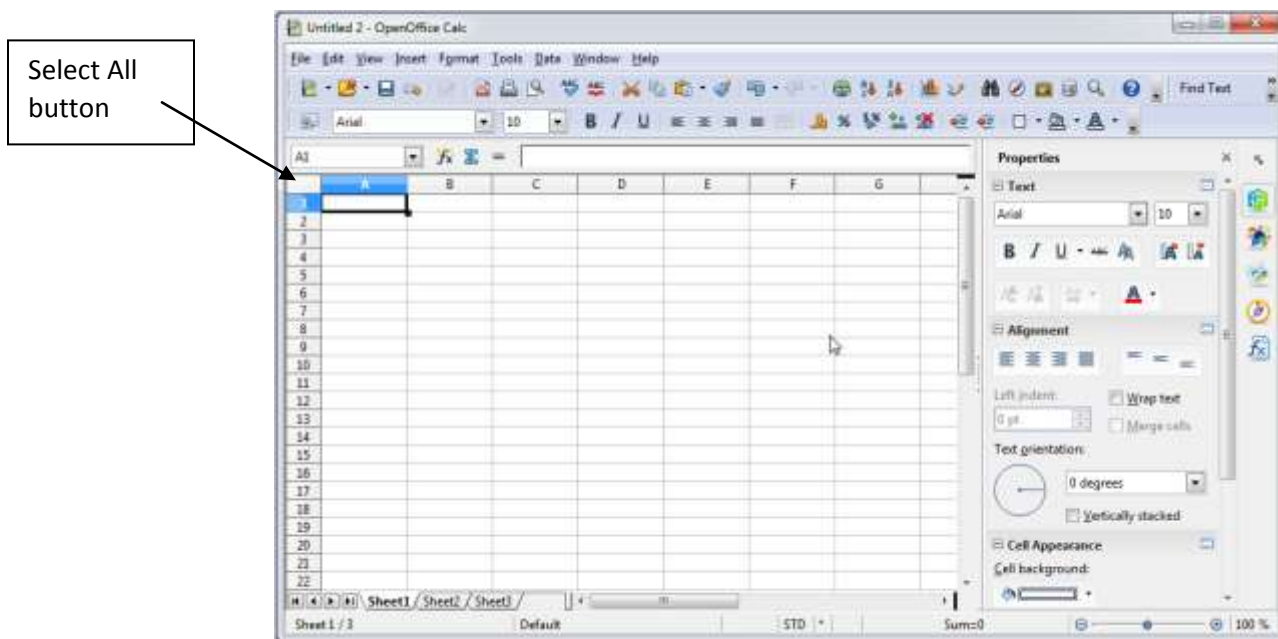


Fig 10 Select All button

EDIT COMMANDS

After typing in a cell, you may need to change the entire content or do some partial modifications. This can be done in any one of the following ways:

- By overtyping, i.e., changing the content completely
- By partially modifying the content

Overtyping

To edit a cell by overtyping:

1. Select the cell.
2. Type the new content.
3. Press ENTER key.

Partial Modification

If some minor modification is required in a cell content:

1. Select the cell.
2. Click the **Formula bar**.
OR
Press **F2**
Or

- Double-click in the cell.
- Now, edit the content in the formula bar or in the cell.
 - Press the ENTER key or click Enter button on the Formula bar.

Undo and Redo

The undo command allows you to reverse the last action you have performed. To undo the last action, you can do any one of the following:

Click the **Undo** button on the **Standard** bar. (Fig 11)

Or

Select **Undo** option from the **Edit** menu.(Fig 12).

Or

Press **CTRL + Z**.

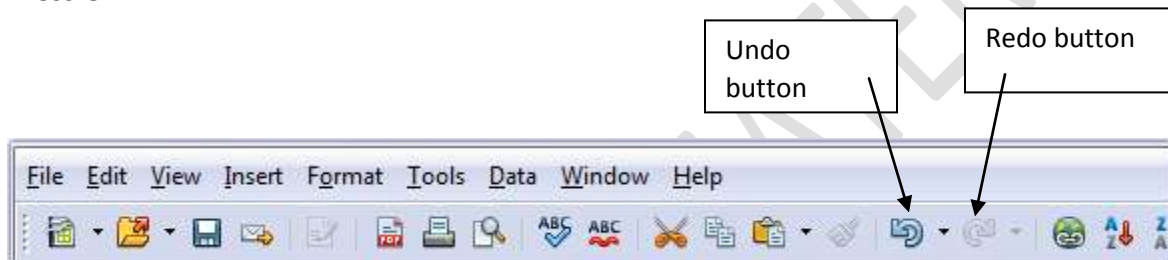


Fig 11 Undo button on Standard bar

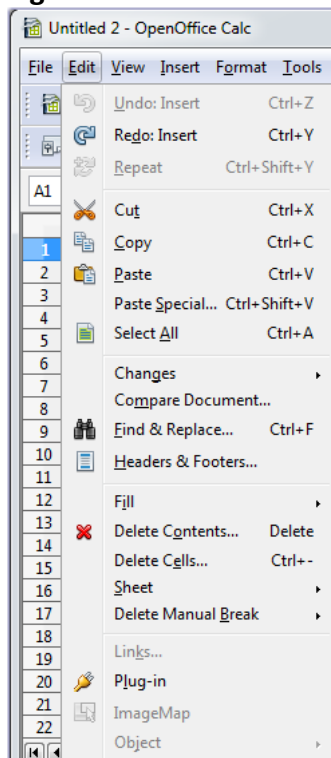


Fig 12 Undo option of Edit menu

The redo command is activated only after you have undone an action.
To redo an action that you undid, you can do one of the following:

Click the **Redo** button on the **Standard** bar.

Or

Click the **Edit** button and then click **Redo** in the drop-down menu.

Or

Press CTRL + Y.

Copying Cell Contents

To copy cell contents in Calc, the steps are:

1. Select the cell(s) that contain(s) the data you want to copy.
2. Select **Copy option** from the **Edit** menu. (Fig 13)

Or

Click the **Copy** button on the **Standard** bar. (Fig 14)

Or

Press **CTRL + C** to copy the data.

3. Click on the cell(s) where you want to paste the data.
4. Select Paste option from the Edit menu.

Or

Click the **Paste** button on the **Standard** bar.

Or

Press CTRL + V.

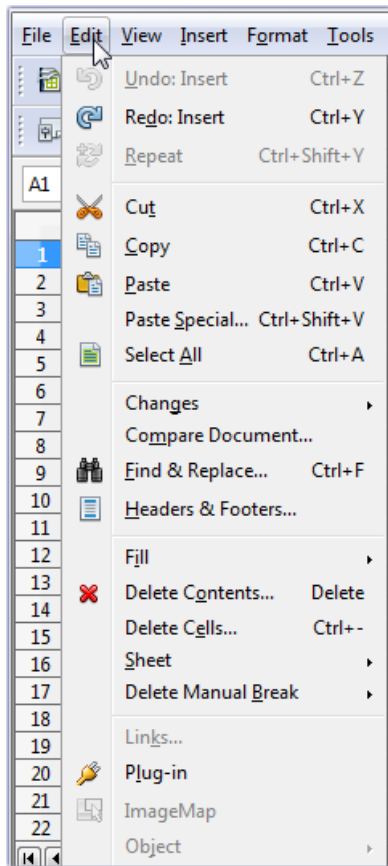


Fig 13 Copy option of Edit menu

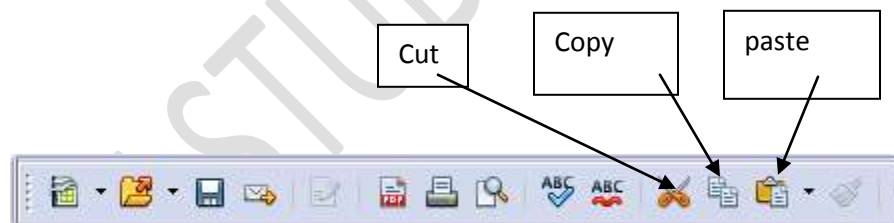


Fig 14 Standard bar

Moving Cell Contents

To move cell contents from one cell to another in Calc, the steps are:

1. Select the cell that contains the data you want to cut.
2. Select **Cut** option from the **Edit** menu.

Or

Click the **Cut** button on the **Standard** bar.

Or

Press CTRL + X to cut the data.

3. Click on the cell where you want to paste the data.

4. Select Paste option from the Edit menu.

Or

Click the **Paste** button on the **Standard** bar.

Or

Press CTRL + V.

Inserting Cells

To insert cells, the steps are:

1. Select the range of cells where you want to insert a block of cells.
2. Select **Cells** option from the **Insert** menu.(Fig 15)
3. The **Insert Cells** dialog box appears (Fig. 16).
4. Select the appropriate option and click **OK**.

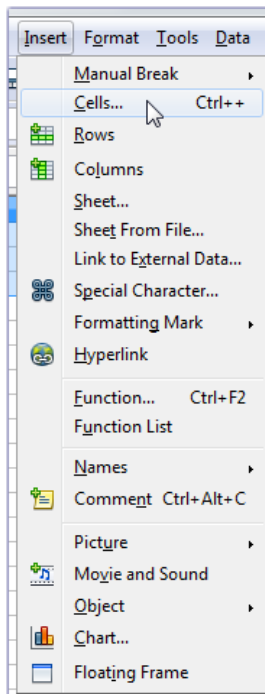


Fig 15 Cells option of Insert menu

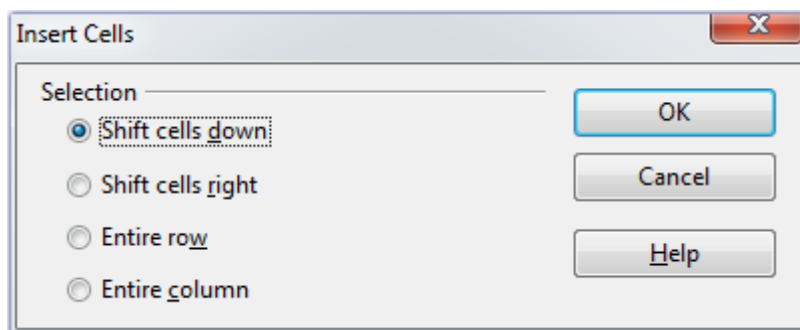


Fig. 16 Insert Cells dialog box

Deleting Cells

To delete cells, the steps are:

1. Select the range of cells where you want to delete a block of cells.
2. Select **Delete Cells** option from the **Edit** menu. (Fig 17)
3. The **Delete Cells** dialog box appears (Fig. 18).
4. Select the appropriate option and click **OK**.

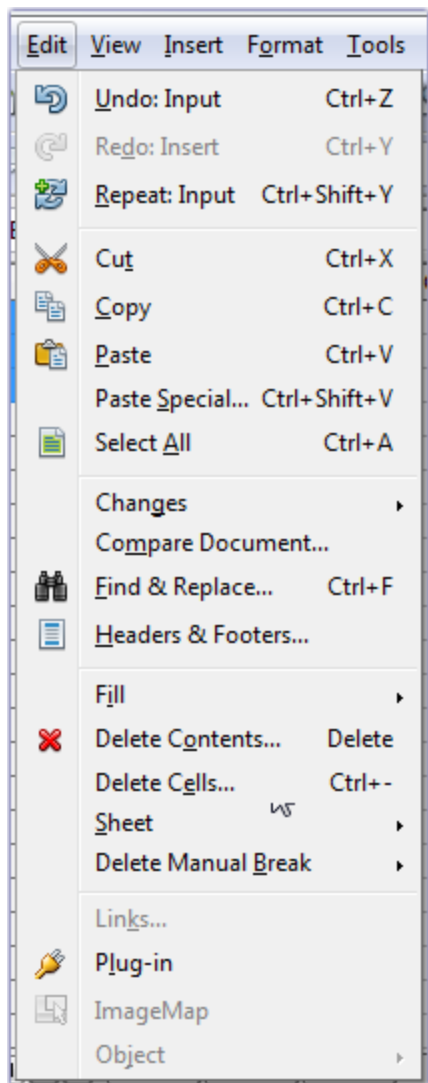


Fig 17 Delete Cells option of Edit menu

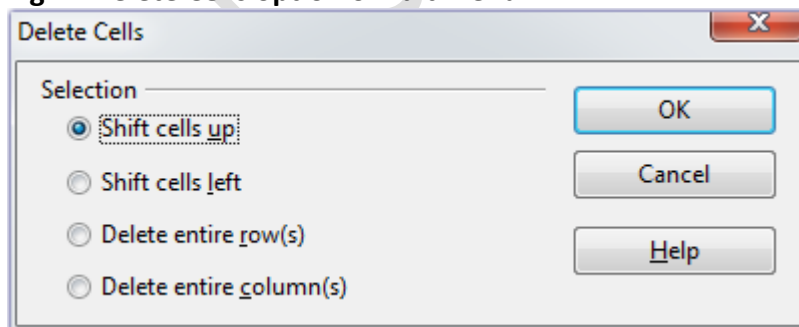


Fig. 18 Delete Cells dialog box

Inserting Rows

The steps to insert rows are:

1. Select the row where you want to insert a new row.
2. Select **Rows** option from the **Insert** menu.

Or

Right-click the row header and select **Insert Rows** in the shortcut menu. (Fig 19)

A new row is inserted above the selected/highlighted row. Cells in the new row are formatted similar to the corresponding cells in the row before which the new row is inserted.

Multiple rows can be inserted at once by selecting multiple rows using the CTRL key or by dragging the mouse while holding down the left mouse button.

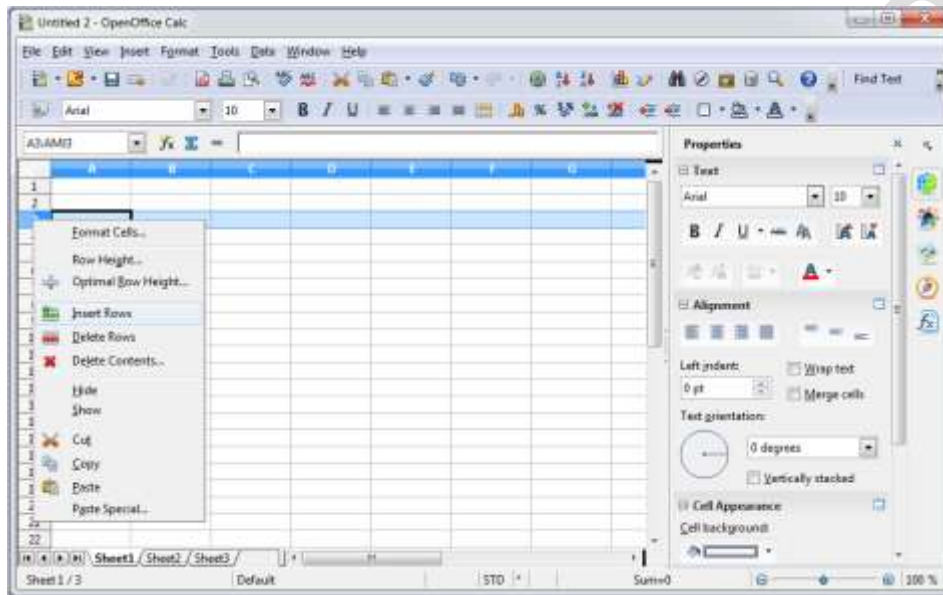


Fig 19 Insert Rows option in Shortcut

Inserting Columns

To insert columns, the steps are:

1. Select the column where you want to insert a new column.
2. Select Columns option from the Insert menu.

Or

Right-click the column header and select **Insert Columns** in the shortcut menu. (Fig 20)

When you insert a new column, it is inserted to the left of the selected/highlighted column. Cells in the new column are formatted similar to the corresponding cells in the column to the left of which the new column or row is inserted.

Multiple columns can be inserted at once by selecting multiple columns using the CTRL key or by dragging the mouse while holding down the left mouse button.

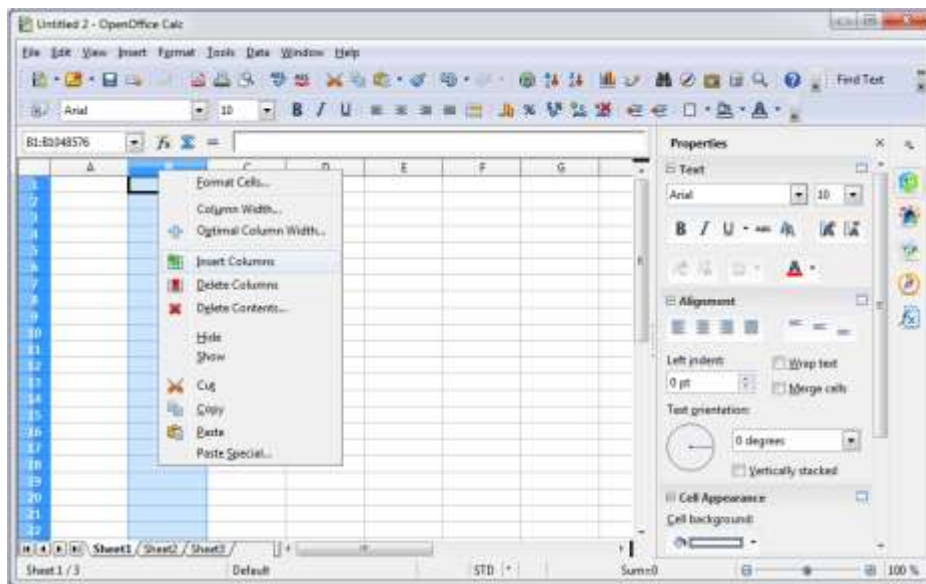


Fig 20 Insert Columns option

Deleting Rows

To delete rows, the steps are:

1. Select the row to be deleted.
2. Right-click on the selected column header.
3. Select **Delete Rows option** in the shortcut menu. (Fig 19)

To delete multiple rows, select them using the CTRL key, or by dragging the mouse while holding the left mouse button.

Deleting Columns

To delete columns, the steps are:

1. Select the column to be deleted.
2. Right-click on the selected column header.
3. Select **Delete Columns** in the shortcut menu.

To delete multiple columns, select them using the CTRL key, or by dragging the mouse while holding the left mouse button.

Instead of deleting a row or column, you may want to delete the contents of the cells but keep the empty row or column. This can be done in the following manner:

1. Select the cell(s), the contents of which you want to delete.
2. Press the DELETE key.

Or

- Select **Delete Contents** option of **Edit** menu.
3. The **Delete Contents** dialog box appears (Fig. 21).

3. Check the boxes of the kind of data you want to delete (e.g., checking **Formats** will remove the formatting changes such as bold, italics, font colors, and borders).
4. Click **OK**.

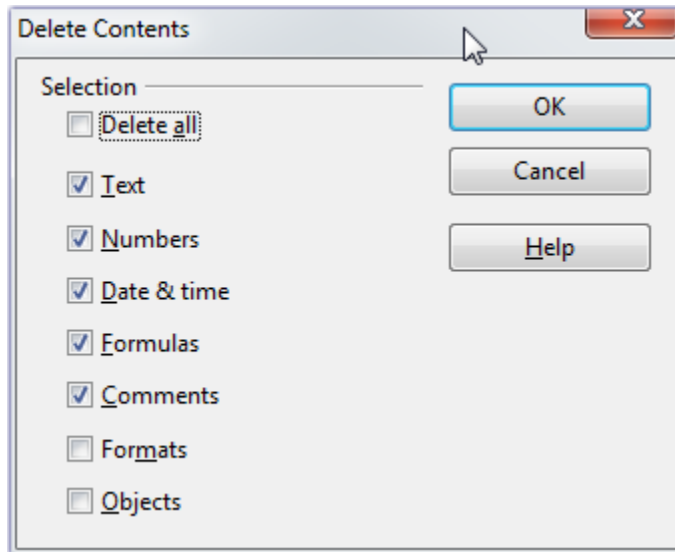


Fig. 21 Delete Contents dialog box

Changing Row Height You can change the row height in a Calc worksheet in any of the following ways:

- Drag the divider below the row (**Fig 22**).
- To fit the row height to the cell contents, double-click the divider.
- Select **Format > Row > Height (Fig 23)**. The **Row Height** dialog box appears (**Fig. 24**). Enter the value for row height in the **Height** spinbox.

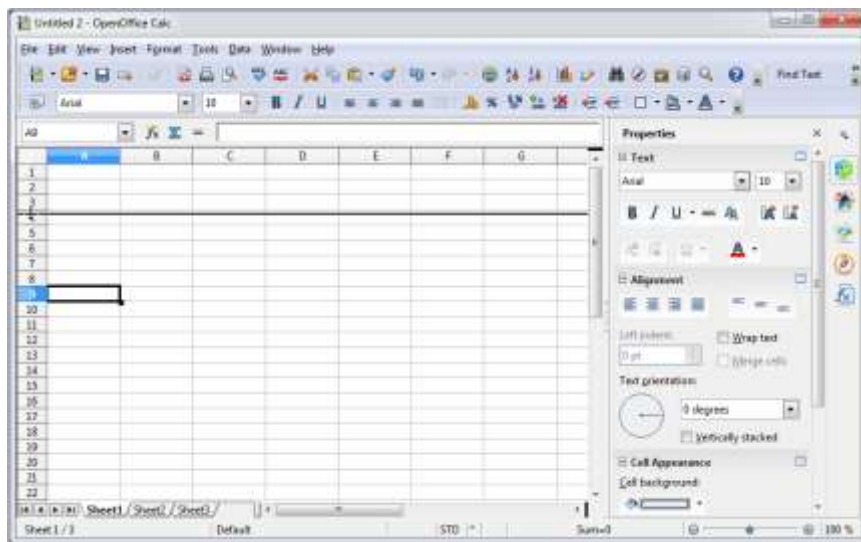


Fig 22 Changing row height

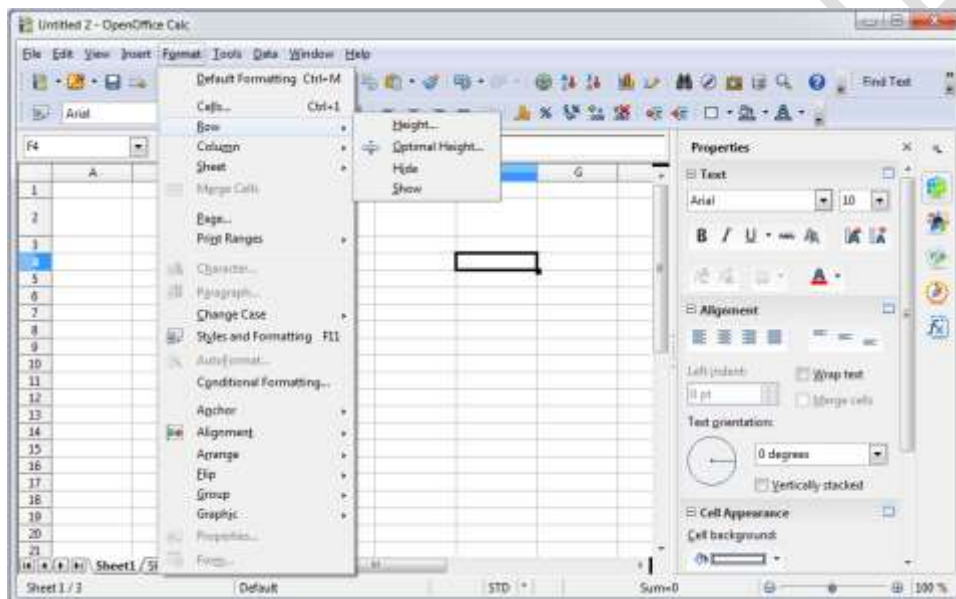


Fig 23 Format menu

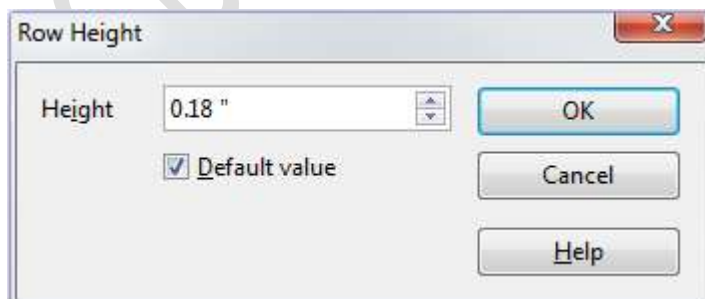


Fig. 24 Row Height dialog box

Changing Column Width

You can change the column width in a Calc worksheet in any of the following ways:

- Drag the divider to the right of the column header (**Fig 25**).
- To fit the column width to the cell contents, double-click the divider.
- To change the column width, select **Format > Column > Width**. (**Fig 26**) The **Column Width** dialog box appears (**Fig. 27**). Enter the value for column width in the **Width** spinbox.

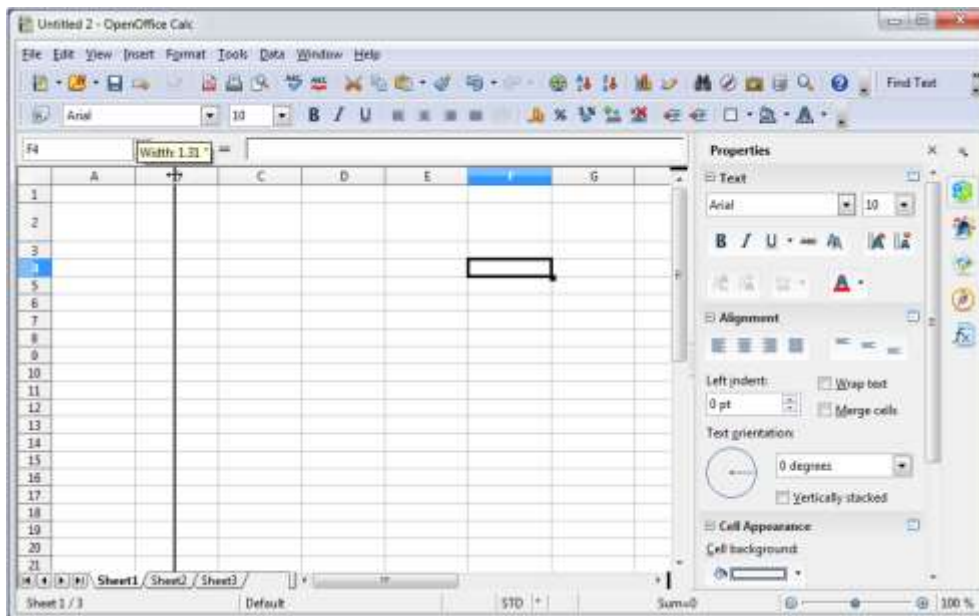


Fig 25 Changing column width

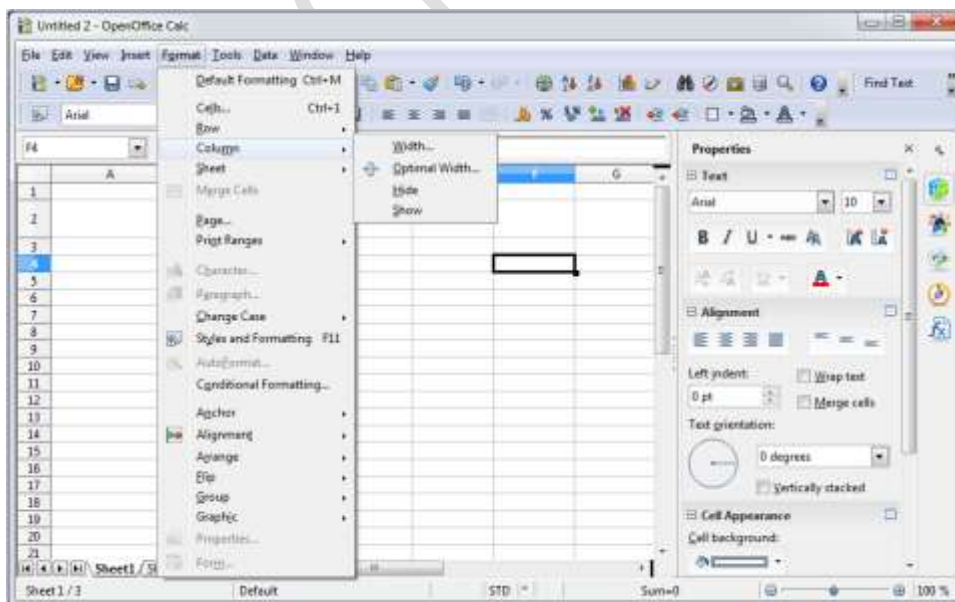


Fig 26 Format menu

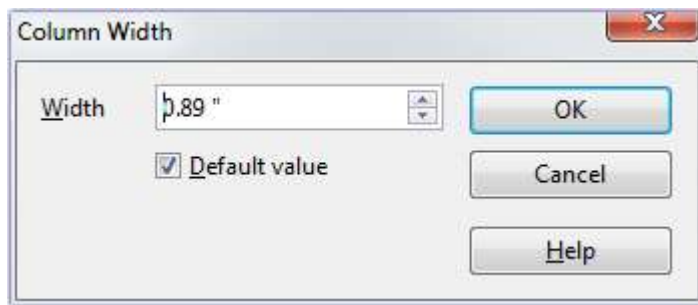


Fig. 27 Column width dialog box

Selecting the **Default value** checkbox automatically adjusts the row height or column width based on the current font.

FORMATTING DATA

The options for formatting data/text are available on the **Formatting bar (Fig 28)**. The use of each of the options is explained below the figure.

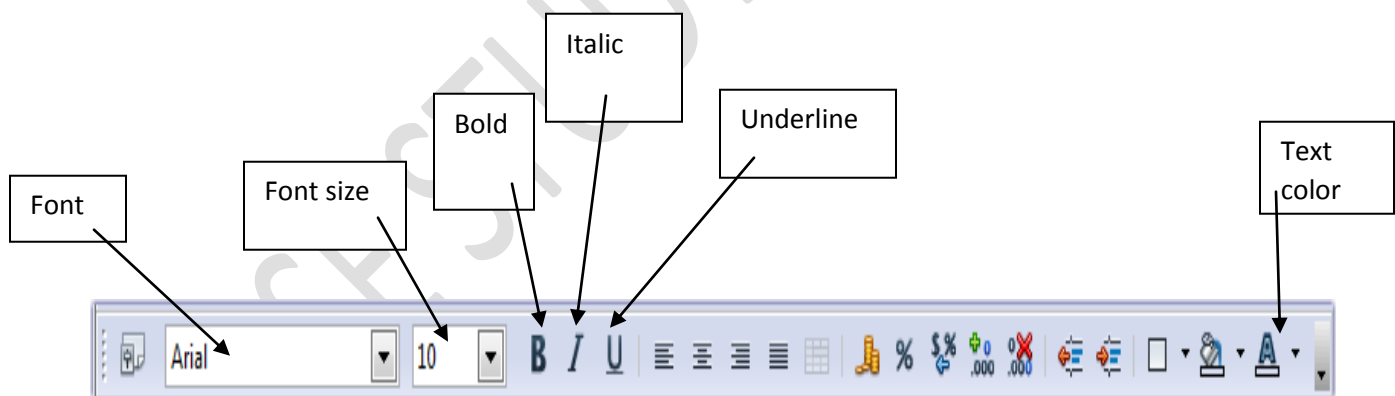


Fig. 28 Formatting bar

Font formatting options can also be accessed by selecting **Format > Cells**. The **Format Cells** dialog box appears.(**Fig 29**) It has seven tabs with various options for font formatting.

- a. Click the **Numbers** tab (**Fig 29**). You can select the desired Number format.

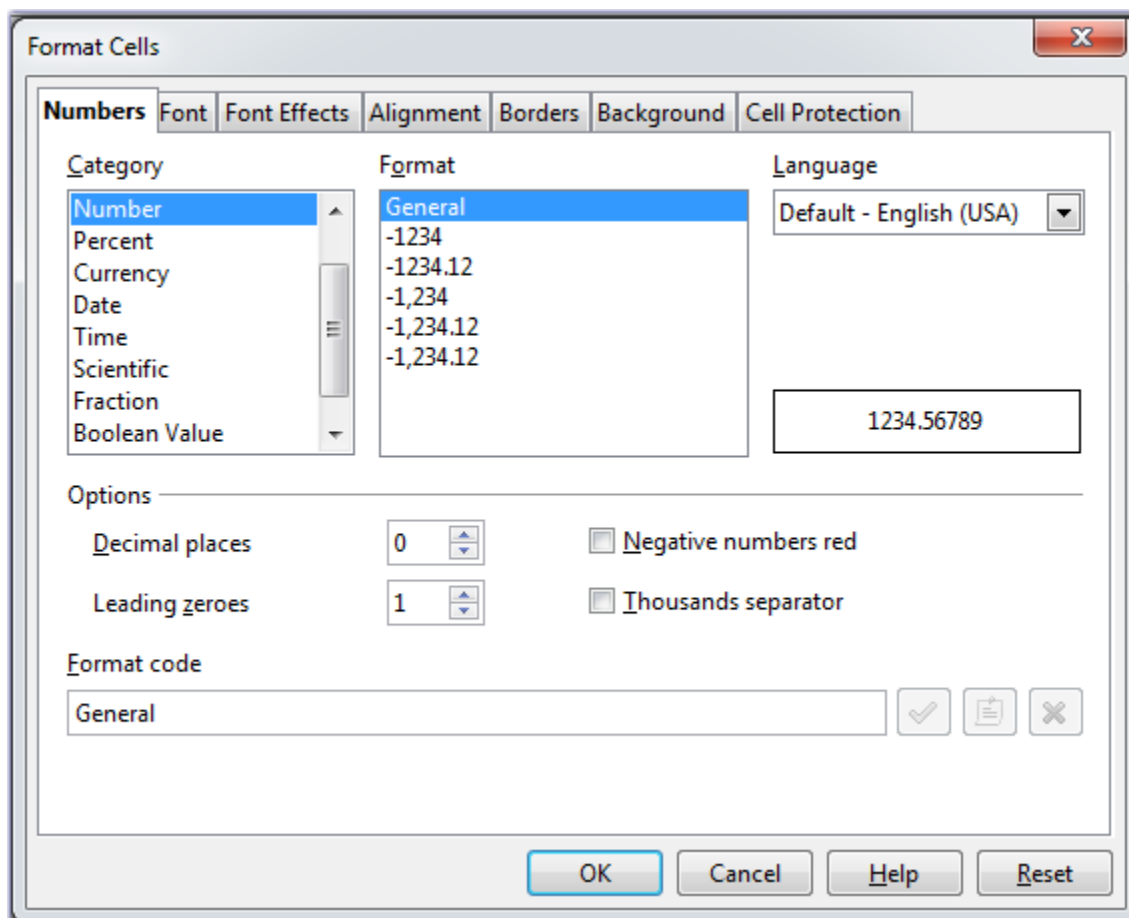


Fig 29 Format Cells dialog box

- b. Click the **Font** tab (**Fig 30**). You can select font, font size, etc. from this tab.

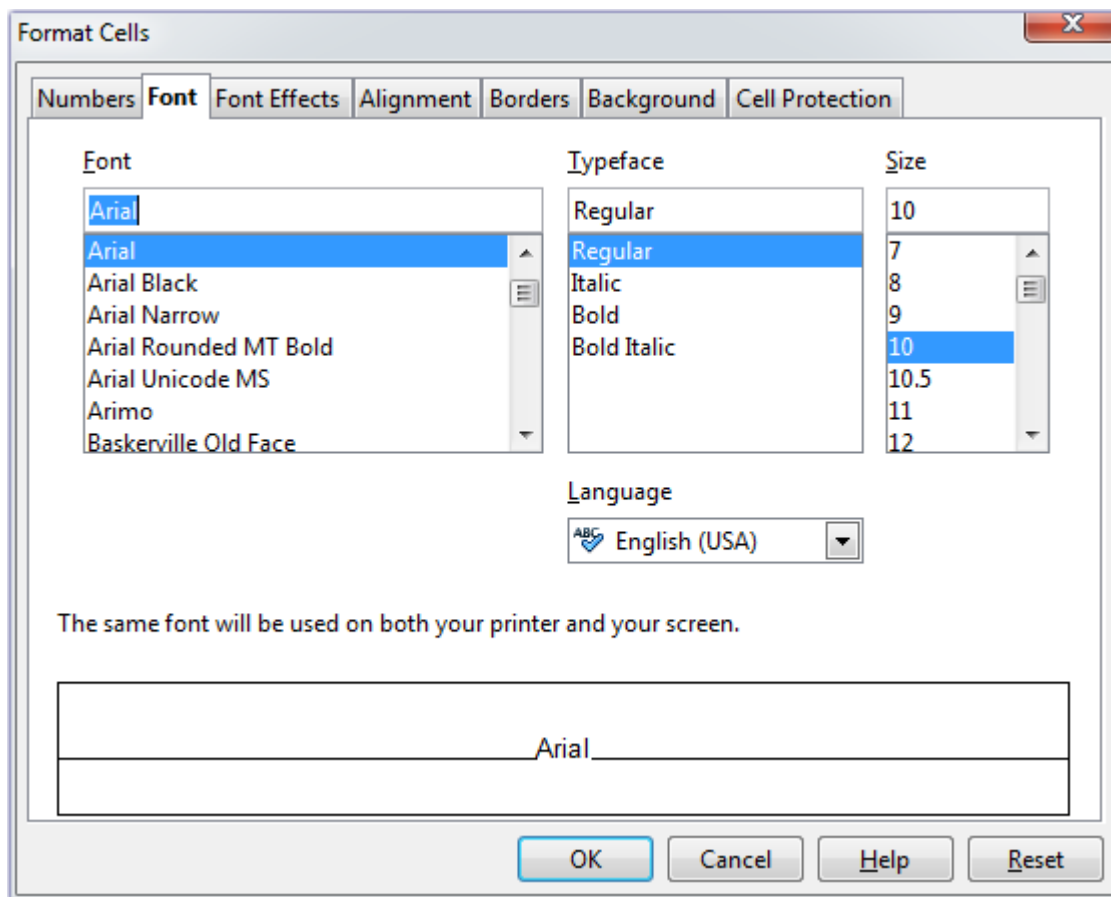


Fig 30 Font tab

- c. Click **Font Effects** tab (Fig 31).

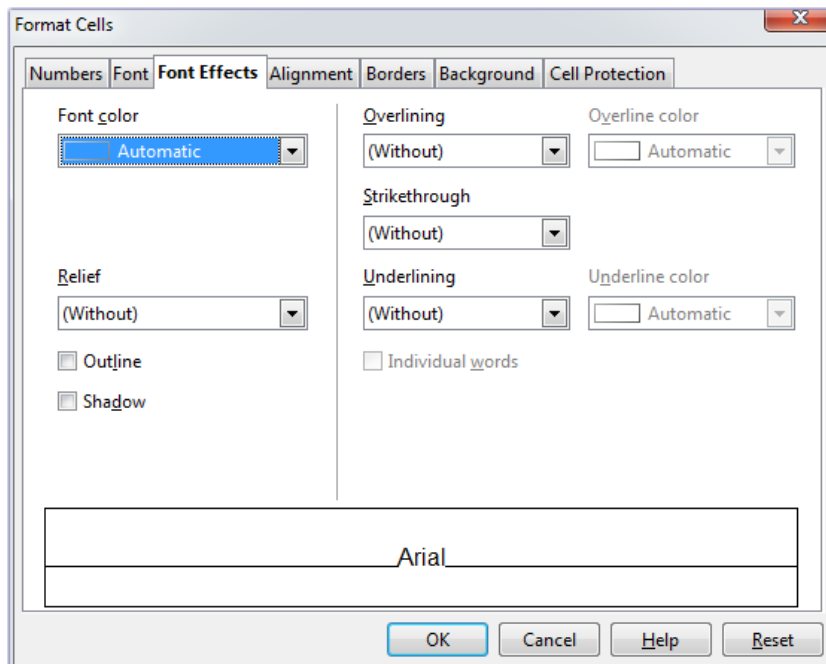


Fig 31 Font Effects tab

d. Click **Alignment** tab (Fig 32).

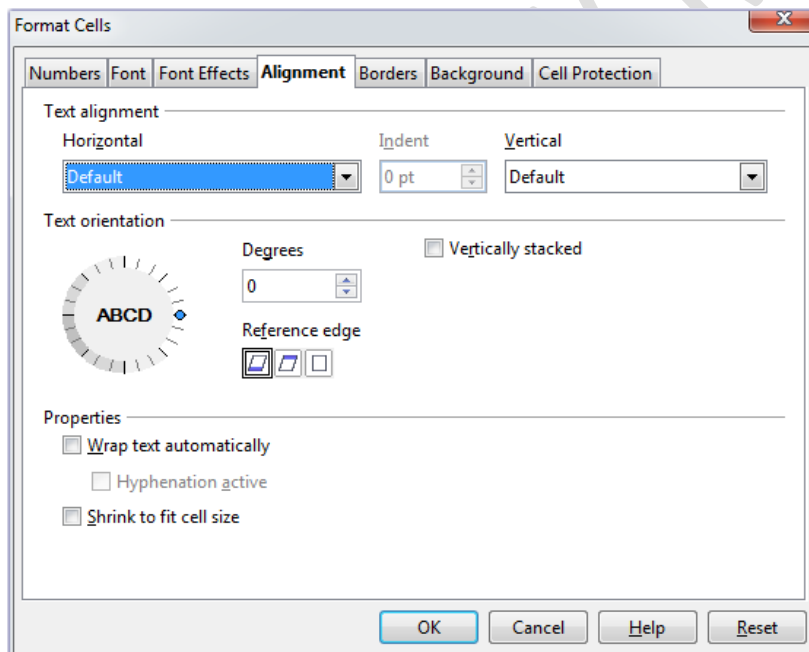


Fig 32 Alignment tab

e. Click **Borders** tab (Fig 33).

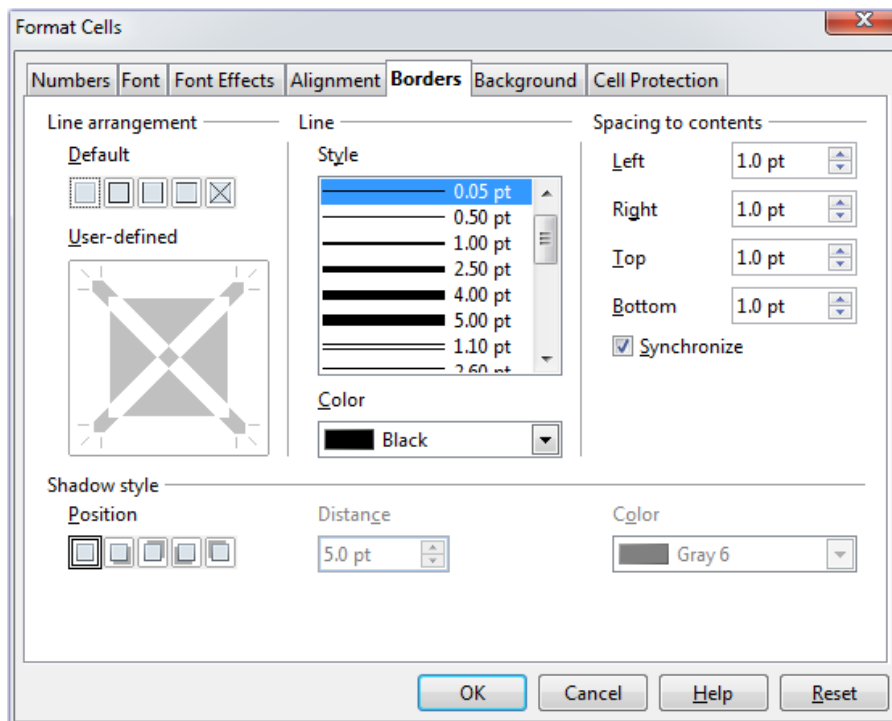


Fig 33 Borders tab

- f. Click **Background tab** (Fig 34).

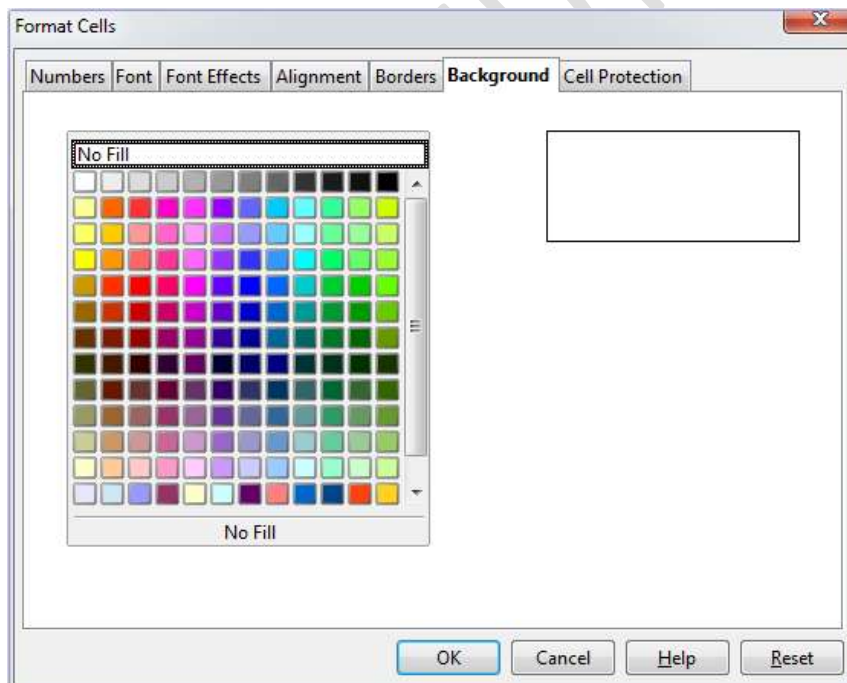


Fig 34 Background tab

Using Autofill

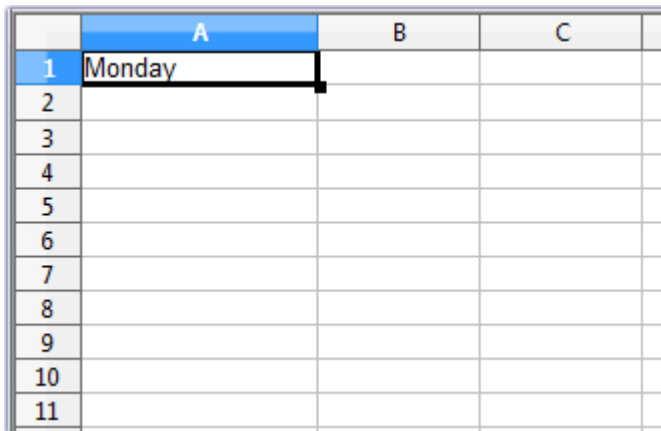
The **AutoFill** feature of Calc allows you to fill a range of cells with a series of data without typing all of it.

The predefined series that can be filled in Calc using AutoFill are:

- months of the year
- days of the week.

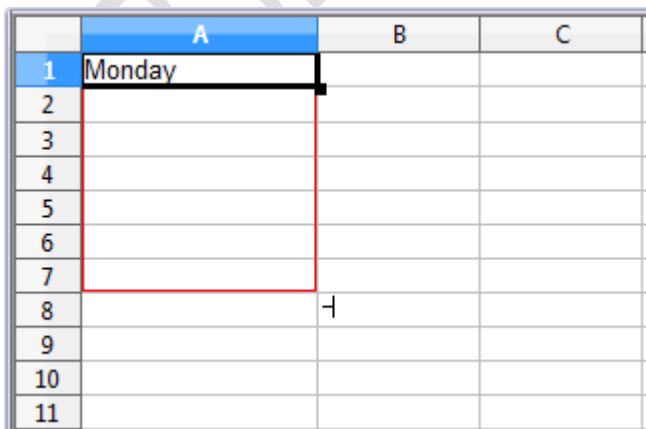
To use AutoFill for a series the steps are:

1. Select the cell, say A1, which has the data, say, Monday (**Fig. 35**). You want to fill the rest of the days of the week in the column.
2. Move the mouse pointer to the small black square at the lower-right corner of the cell. This square is called the **fill handle**.
3. When you point to the fill handle, the mouse pointer changes to a cross shape.
4. Drag to enclose the area you want to fill (**Fig. 36**).
4. Release the mouse button. The cells enclosed will be filled with days of the week (**Fig. 37**).



	A	B	C
1	Monday		
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

Fig 35 Selecting cell



	A	B	C
1	Monday		
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

Fig 36 Dragging to fill the list

	A	B	C
1	Monday		
2	Tuesday		
3	Wednesday		
4	Thursday		
5	Friday		
6	Saturday		
7	Sunday		
8			
9			
10			
11			

Fig 37 Filled series

You can also fill a cell range with a series of numbers. The steps are:

1. Type the first two values of the series in two adjacent cells. (**Fig 38**)
2. Select the two cells. Click the fill handle in the lower-right corner of the selected cells.
3. Drag it to enclose the area you want to fill (**Fig. 39**).
4. Release the mouse button (**Fig. 40**). AutoFill uses the difference between the first two numbers and keeps adding it to the last number. So the range gets filled automatically.

	A	B	C
1	1		
2	2		
3			
4			
5			
6			
7			
8			
9			
10			

Fig 38 Selecting cells

	A	B	C	
1	1			
2	2			
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Fig 39 Dragging the autofill handle

	A	B	C	
1	1			
2	2			
3	3			
4	4			
5	5			
6	6			
7	7			
8	8			
9	9			
10	10			
11	11			
12				
13				
14				
15				

Fig 40 Filled list

Lets Try It

1. Create the following series in Calc

	A	B	C	D	E	F
1	1	2	1	Sunday	January	
2	2	4	5	Monday	February	
3	3	6	9	Tuesday	March	
4	4	8	13	Wednesday	April	
5	5	10	17	Thursday	May	
6	6	12	21	Friday	June	
7	7	14	25	Saturday	July	
8	8	16	29		August	
9	9	18	33		September	
10	10	20	37		October	
11	11	22	41		November	
12	12	24	45		December	
13	13	26	49			
14	14	28	53			
15	15	30				
16	16	32				
17	17	34				
18	18	36				
19	19	38				
20	20	40				
21						
22						

2. Create the following Worksheet and perform the following commands:

	A	B	C	D	E
1	Apna Store				
2	S. No.	Item name	Price (in Rupees)		
3	1	Biscuits	10		
4	2	Chocolates	25		
5	3	Soft Drinks	30		
6	4	Mineral Water	20		
7	5	Bread	25		
8					
9					
10					

- Merge the cells of the first row
- Change the row height
- Change the column width
- Choose suitable alignment for the text and numbers
- Apply border to the cells .
- Apply background color to the cells of first row.
- Choose suitable font, size and color for the content in the worksheet.
- Insert a column before 'Price' and enter the company name for the products.

Worksheet

1. Mention two ways in which you can select the entire worksheet.

2. How will you refer to the range of cells from A1 to B5?

3. What is the address of the cell formed by the intersection of column 4 and row 7?

4. Name the cell after cell z?

5. Name the menu that has option to save a file.

6. How can you select multiple ranges of cells simultaneously?

7. Write keyboard shortcut for Undo and Redo commands.

8. Which feature of Calc will help you to create a series of week days and multiples of five?

9. How can you quickly change the row height?

10. By default how many worksheets are there in a Calc workbook?

Formula in a Worksheet

Formulae are used to calculate results through arithmetic operations. A formula in Calc always starts with an **equal to (=)** sign.

The data in a formula consists of one or a combination of the following:

Value Numeric (e.g., 45) or string (e.g., "Smiling")

Cell Address B4, A2:C6

Function SUM, AVERAGE, MIN, MAX, etc.

Operator +, -, *, /, >, =, etc.

Parenthesis To control the left to right order of precedence in a formula (e.g., = (B2*B3)*2)

A **formula** is a sequence of values, cell references, functions, and/or operators that is contained in a cell which produces new values from existing values.

To enter a formula:

1. Select a cell and enter the formula directly in the cell or in the **Formula bar**.

2. Press **ENTER** key.
3. The cell will show the result of the formula and not the formula itself. You can see the formula in the **Formula bar** when the cell is selected. (**Fig 41**)

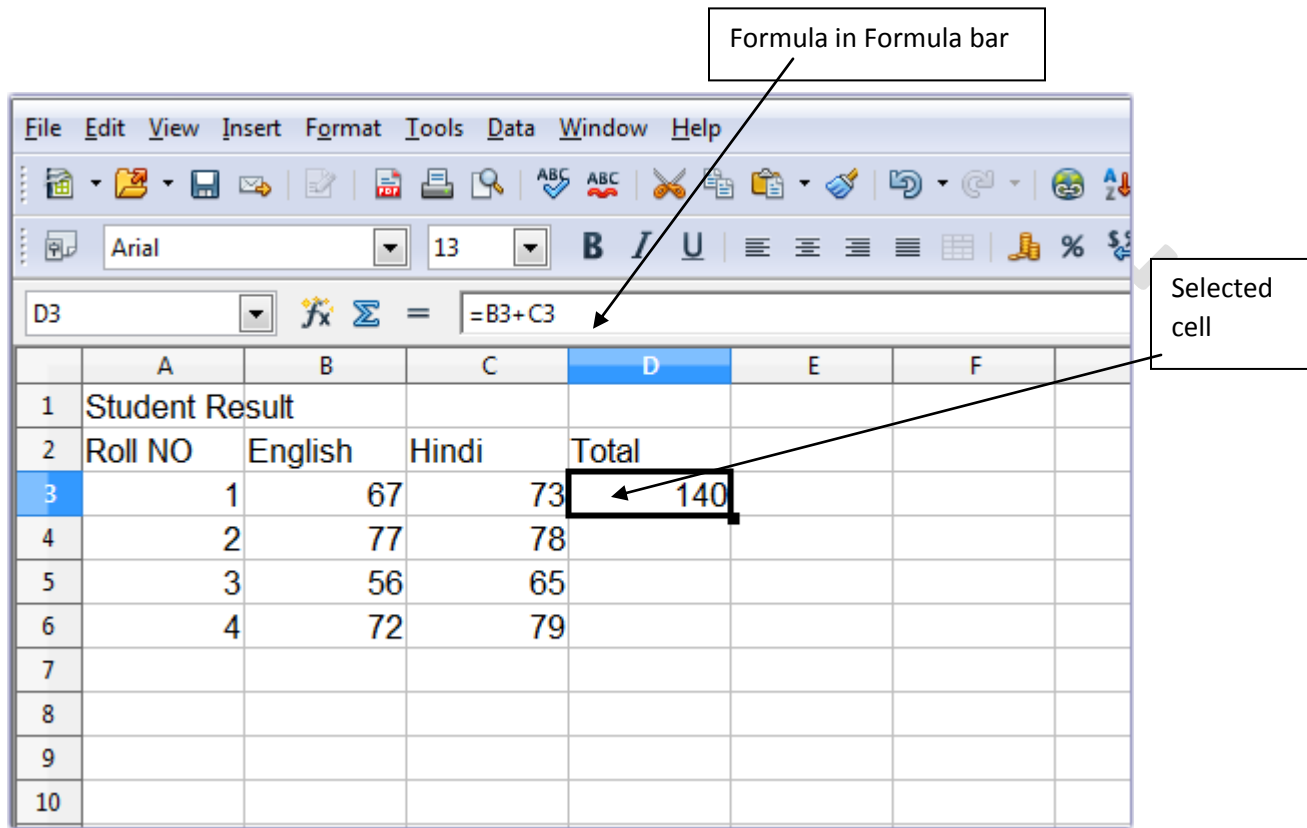


Fig 41 Formula in Formula bar

TEXT FORMULAE

A text string or a text value is a sequence of characters. You can join two strings together. This is called concatenation. We use the ampersand (&) character to concatenate strings.

For example, if you type = "Keep" & " " & "Smiling" in a cell and press **ENTER**, you will see the result as **Keep Smiling**.

You cannot do operations such as subtraction, multiplication, and division on strings.

NUMERIC FORMULAE

In numeric formulae, you have to make use of operators. The results are calculated based on the order of precedence of the operators.

Mathematical Operators Used in Formulae

The mathematical operators used in Calc and their order of evaluation in formulae is given below:

Operation	Operator	Order of evaluation	Formula	Result
Exponent	^	1	$= 2^3$	8
Multiplication	*	2	$= 3 * 5$	15
Division	/	2	$= 9 / 3$	3
Addition	+	3	$= 12 + 15$	27
Subtraction	-	3	$= 18 - 15$	3

Order of evaluation

1. Any operation contained within brackets will be carried out first
2. Then any exponent.
3. Then follow division and multiplication operations. Multiplication and division are given equal importance. They are carried out in the order they occur in the formula, from left to right. Whichever appears first in the formula is carried out first.
4. After that, addition and subtraction operations are given equal importance. They are also carried out in the order they occur in the formula, from left to right.

Following are some examples of how Calc evaluates formulae.

Formula	Output
$= (3 + 7) * 2$	20
$= 4 * 3 + 5$	17
$= 3 + 3^2$	12
$= 5 + 3 * 4 - 2$	15
$= 6 + 14 / 2 * 3 - 4$	23

ERROR RESULTS

Sometimes a formula displays an error result rather than a proper value. This happens when the formula or data has a problem and Calc cannot evaluate it.

Some common errors are shown below:

Error	Reason
#####	The column is not wide enough to display the value.
#DIV/0!	The formula contains an invalid operation, i.e., division by zero.
#VALUE!	The formula has invalid argument, e.g., text in a cell where numeric value is required.

Cell and Range References

A cell **reference** identifies a cell or a range of cells. Each cell in the worksheet has a unique address formed by the combination of its intersecting row and column. When a cell address is referred to in a formula, it is called **cell referencing**.

Consider the following examples:

Cell or a Range of Cells

The cell in column B and row 4

Reference

B4

All cells in row 5	5:5
All cells in rows 5 through 9	5:9
All cells in column B	B:B
The range of cells in column F and rows 1 through 7	F1:F7
The range of cells in row 5 and columns C through E	C5:E5
All cells in columns C through G	C:G
The range of cells in columns B through G and rows 4 through 8	B4:G8

ENTERING A FORMULA

All formulae in OpenOffice Calc begin with an **equal to (=)** sign. A formula can contain number, text, arithmetic operators (+, -, *, /), or functions. The order of precedence is already discussed.

Consider the following worksheet.

	A	B	C	D	E	F
1	Student Result					
2	Roll NO	English	Hindi	Total		
3	1	67	73			
4	2	77	78			
5	3	56	65			
6	4	72	79			
7						
8						
9						
10						

Fig 42 Worksheet

To find the total marks:

1. Select cell D3.
2. Type the formula =B3+C3.
3. To copy this formula in other cells:
 - a. Select cell D3.
 - b. Click the AutoFill handle and drag till cell D6. (**Fig 43**)

	A	B	C	D	E	F
1	Student Result					
2	Roll NO	English	Hindi	Total		
3	1	67	73	140		
4	2	77	78	155		
5	3	56	65	121		
6	4	72	79	151		
7						
8						
9						
10						
11						

Fig 43 Copying formula

- c. The formula copied in cell D4 will be $=B4+C4$.
- d. The formula copied in cell D5 will be $=B5+C5$.
- e. The formula copied in cell D6 will be $=B6+C6$.

SUM

You have already learnt how to find total using the formula. You can also obtain the sum of the values in a range of cells by:

- Clicking the **Sum** button on the **Formula** bar (Fig 44)
- Using the **SUM()** function



Fig 44 Formula bar

Let us consider an example.

1. Consider the worksheet shown in **Figure 45**.

	A	B	C	D	E	F
1	Roll No	Term I	Term II	Total		
2	1	45	56			
3	2	67	70			
4	3	45	68			
5	4	67	67			
6	5	56	67			
7	6	45	56			
8						
9						
10						
11						
12						

Fig 45 Creating a worksheet

2. Select the cell D2.
3. Click the **Sum** button on the **Formula** bar. Notice it will select the range A2:C2. (**Fig 46**).

	A	B	C	D	E	F
1	Roll No	Term I	Term II	Total		
2	1	45	56	=SUM(A2:C2)		
3	2	67	70			
4	3	45	68			
5	4	67	67			
6	5	56	67			
7	6	45	56			
8						
9						
10						
11						

Fig 46

4. Select the correct range B2:D2 or type the correct range (**Fig 47**).

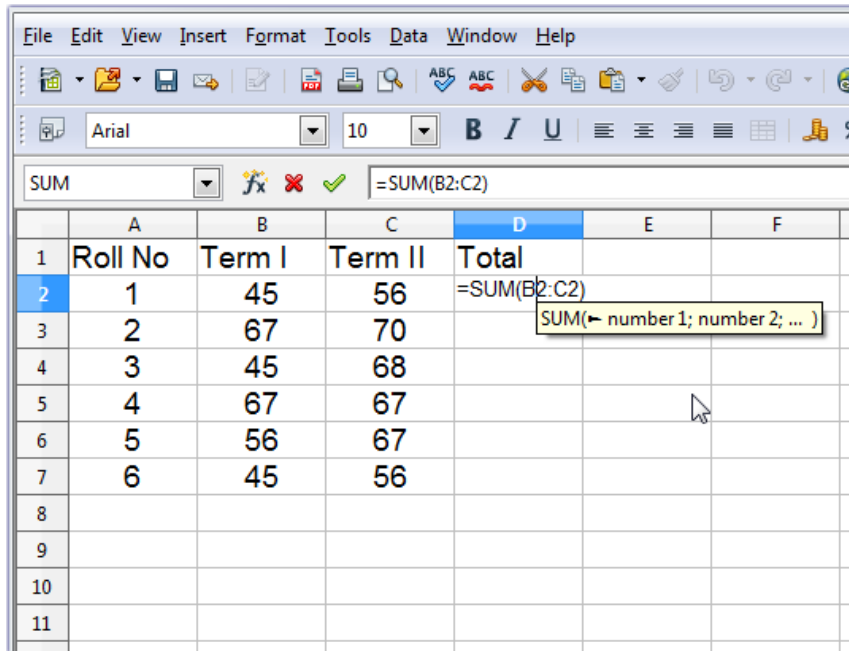


Fig 47

- Press ENTER (**Fig. 48**) to perform the operation. The sum of the range B2:C2 will appear in cell D2.

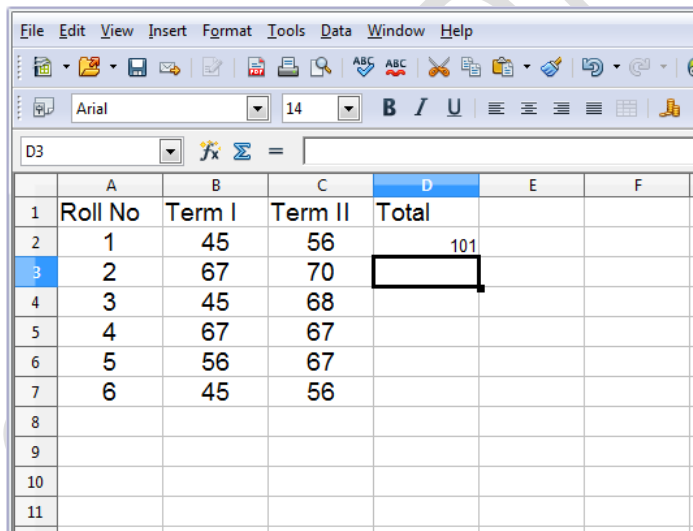


Fig 48

- Select cell D2 and using the AutoFill handle, drag the formula through D7. The respective sums will appear in the respective cells. (**Fig 49**)

	A	B	C	D	E	F
1	Roll No	Term I	Term II	Total		
2	1	45	56	101		
3	2	67	70	137		
4	3	45	68	113		
5	4	67	67	134		
6	5	56	67	123		
7	6	45	56	101		
8						
9						
10						

Fig 49

FUNCTIONS

Functions are predefined formulae that perform calculations using specific values called arguments.

The format of writing any function in Calc is:

=function_name(Argument1;Argument2; Argument3;.....)

Arguments These are the values passed to a function so that the function carries out the intended calculation or manipulation to give results. Arguments can be constants, formulae, or function.

SUM function

SUM function is used to find total of numbers in a range of cells.

For example:

Formula	Result
=SUM(5;6;12)	23
=SUM(A1;B1;C1) where A1, B1 and C1 contain the values 12, 23 and 14 respectively	49

AVERAGE Function

Average function is used to find the average of numbers in a range of cell.

For example:

Formula	Result
=AVERAGE(3;6;9)	6
=AVERAGE(A1;B1;C1)	5
where A1, B1 and C1 contain the values 4, 5 and 6 respectively	

COUNT Function

The COUNT function is used to count the number of numeric values in a range of cells.

For example:

Formula	Result
=COUNT(5;8;14;19)	4
=COUNT(A1:A10)	

MAX Function

The MAX function is used to find the maximum of numbers in a given range of cells.

For example,

Formula	Result
=MAX(74;102;134)	134
=MAX(A1;B1;C1)	
Or	
=MAX (A1:C1)	6
where A1, B1 and C1 contain the values 4, 5 and 6 respectively	

MIN Function

The MIN function is used to find the minimum of values in the given range of cells.

For example;

Formula	Result
=MIN(74;102;134)	74
=MIN(A1;B1;C1)	
Or	
=MIN (A1:C1)	4
where A1, B1 and C1 contain the values 4, 5 and 6 respectively	

PRINTING A WORKSHEET

Select **File** ➤ **Page Preview (Fig 50)** to view a worksheet so as to get an idea of how it will look when printed.

or

Click the **Page Preview** button on the **Standard bar (Fig 51)**.

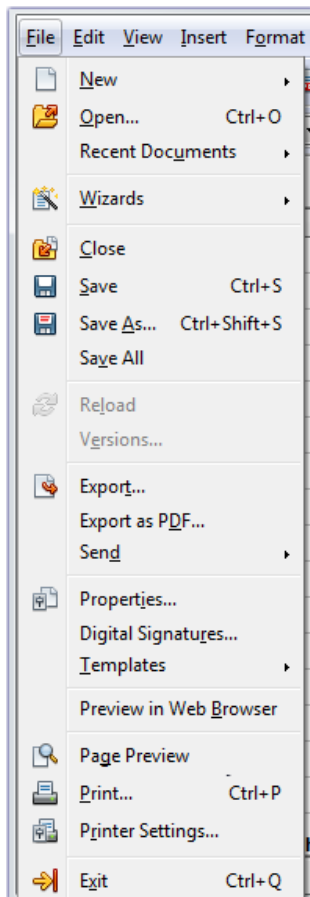


Fig 50

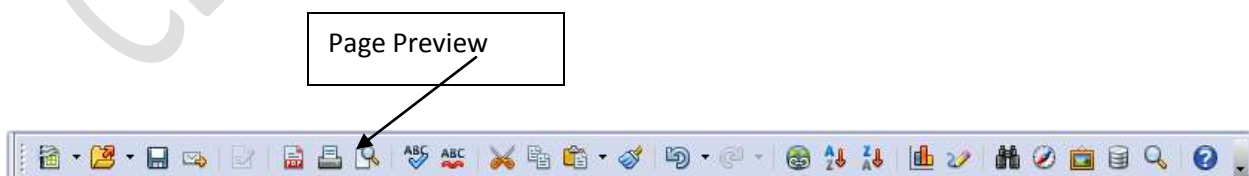


Fig 51

To print a worksheet, the steps are:

1. Click **File** ➤ **Print**.
2. The **Print** dialog box will appear (**Fig. 52**).
3. Select the printer, the range to be printed, and the number of copies.
4. Click the **Print** button.

To quickly print without getting the **Print** dialog box, click the **Print** button on the **Standard** bar. (**Fig 51**)

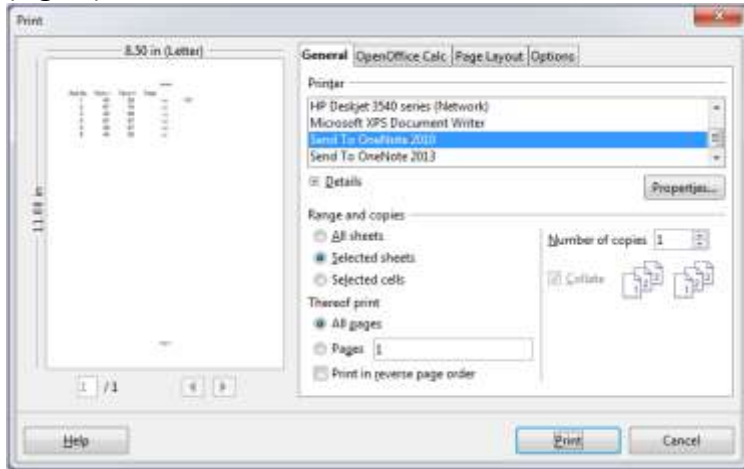


Fig. 52 Print dialog box

Lets Try it

1. Create the following worksheet and calculate total and percentage for each student.

	A	B	C	D	E	F	G	H	I	J
1	Student Result									
2	Roll No	Name	English	Hindi	Maths	Science	Social Science	Total	Percentage	
3	1	Jatin	67	75	56	66	70			
4	2	Shreya	76	67	60	67	62			
5	3	Sooraj	68	66	56	58	60			
6	4	Kamal	70	68	54	62	64			
7	5	Sanjana	62	70	68	64	68			
8										
9										
10										

2. Create the following worksheet. Calculate area and perimeter of square.

	A	B	C	D
1	Area and perimeter of a Square			
2	Side of a Square (in cm)	Area in Sq. Cm	Perimeter in cm	
3	4			
4	8			
5	12			
6	23			
7				
8				
9				

3. Create the following worksheet. Calculate area and perimeter of rectangle.

	A	B	C	D	E
1	Area and perimeter of rectangle				
2	Length in cm	Breadth in cm	Area in sq. cm	Perimeter in cm	
3	12	5			
4	10	4			
5	14	6			
6	13	8			
7					
8					
9					
10					

4. Create the following worksheet and perform calculations using functions in Calc.

File Edit View Insert Format Tools Data Window Help								
Times New Roman 14 B / U								
J13	=							
	A	B	C	D	E	F	G	H
1	Student Result							
2	Roll No	Name	English	Hindi	Maths	Science	Social Science	Total
3	1	Saurabh	67	75	56	66	70	
4	2	Madhur	76	67	60	67	62	
5	3	Tamana	68	66	56	58	60	
6	4	Stuti	70	68	54	62	64	
7	5	Girish	62	70	68	64	68	
8								
9	Maximum							
10	Minimum							
11								
12								
13								

Worksheet

1. How will you refer to a cell in column B and row 3?
2. How will you refer to range of cells in row 5?
3. How will you refer to range of cells in column D through F and rows 3 through 8?
4. Write mathematical operator for the following operation:
 - a. Multiplication
 - b. Division
5. If formula in cell C3 is =A3+B3, what formula will be copied in cell D3?
6. How will you write a function to find average of numbers 5, 12, and 17?
7. Name the function used to find total of numbers in the range of cells A1 to A10.
8. Name the menu used to print the document.
9. What error will you get if the column is not wide enough to display the value?
10. What happens if you write the formula =45/0 in cell A1?

Session 3

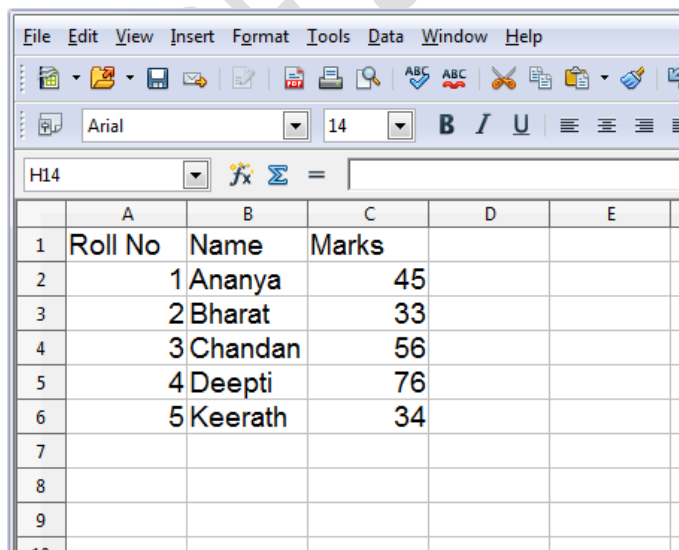
SORTING DATA

Once you have entered data and applied relevant formulas in a worksheet, you can change the order in which the data is present in the cells. This is called sorting of data.

Sorting on numerical and textual values is a one of the main features of any spreadsheet software. In Calc, sorting can be done in the following manner.

Sorting on One Column

1. Enter data in a worksheet (**Fig. 53**).
2. Select any cell, say C1.
3. Click the **Data** option from the **Sort** menu (**Fig. 54**)



	A	B	C	D	E
1	Roll No	Name	Marks		
2	1	Ananya	45		
3	2	Bharat	33		
4	3	Chandan	56		
5	4	Deepti	76		
6	5	Keerath	34		
7					
8					
9					
10					

Fig. 53 Data in worksheet

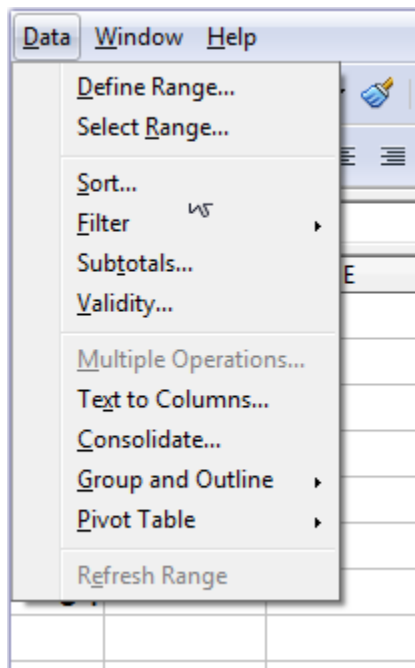


Fig. 54 Sort option in the **Data** menu

3. The **Sort** dialog box appears (**Fig. 55**). Notice that column **Marks** appears under **Sort by** section.
4. Select the **Descending** option under **Sort by** and click **OK**.
5. The data in column **Marks** is sorted in descending order. (**Fig 56**)

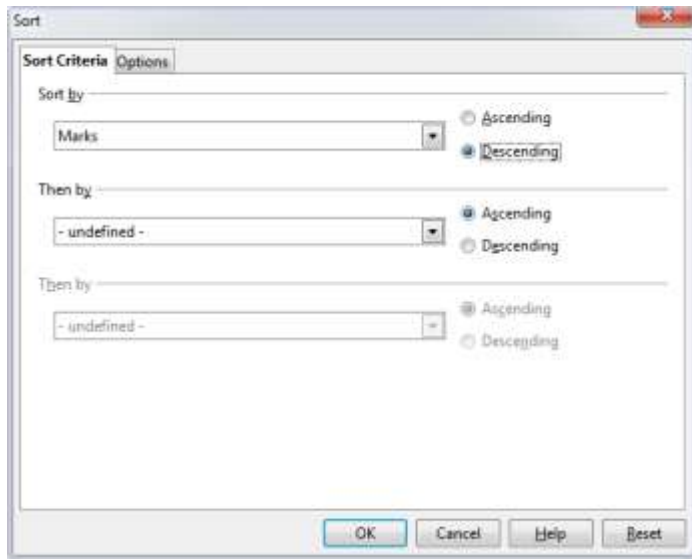


Fig 55 Sort dialog box

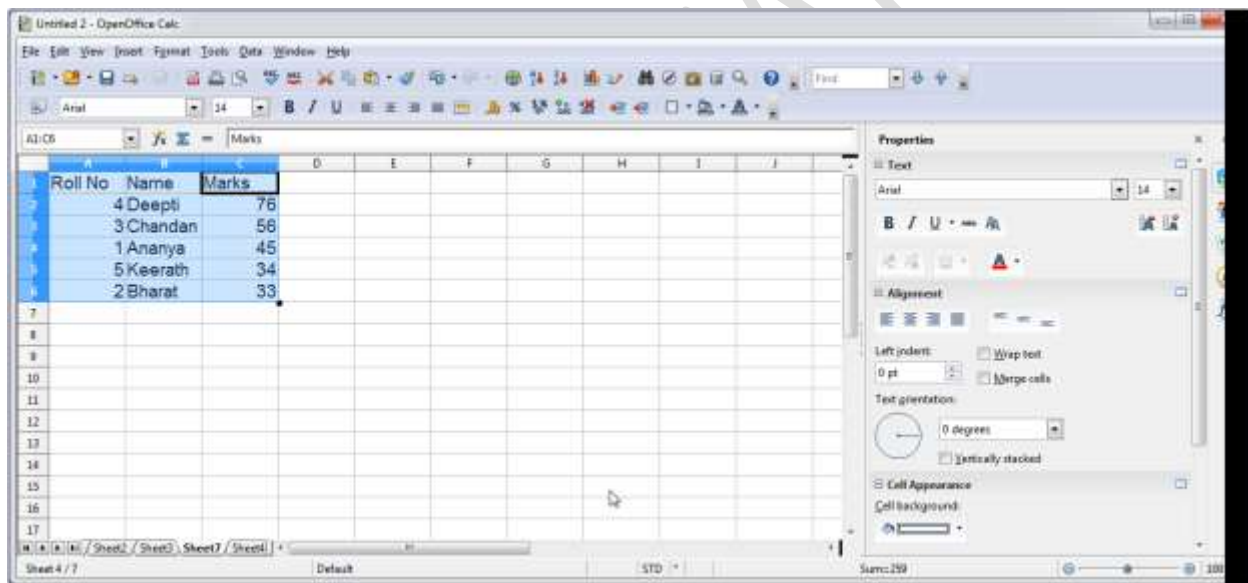


Fig 56 Data arranges in descending order of Marks

You can also sort the data on one column is by using the sorting icons on the **Standard** bar. On the **Standard** bar, click(Fig 57)

- The **Sort Ascending** button to sort the data in ascending order.
- The **Sort Descending** button to sort the data in descending order.

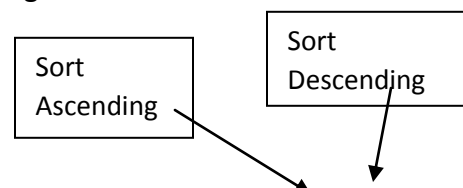




Fig 57 Sort buttons on Standard bar

Sorting on Multiple Columns

You can sort the data on multiple columns.

1. Consider the following worksheet. (Fig 58)

	A	B	C	D	E
1	Salesman No	Salesman Name	Total Sale		
2	S1	Abhijeet	3456		
3	S2	Farhan	2345		
4	S3	Sudesh	4455		
5	S4	Rohit	3456		
6	S5	Deepak	2345		
7	S6	Madan	5467		
8	S7	Sooraj	4563		
9					
10					
11					

Fig 58 Worksheet

2. Select cell, say C1.
3. Select Sort option from Data menu.
4. The Sort dialog box appears.
5. The **Sort Criteria** tab on the **Sort** dialog box has options to sort the data on multiple columns.
6. Select the options as shown in **Figure 59**.
7. The data is sorted in descending order of column **Total Sale**, and where total sale is same, sorting is done in ascending order of column Salesman Name. (Fig 60)

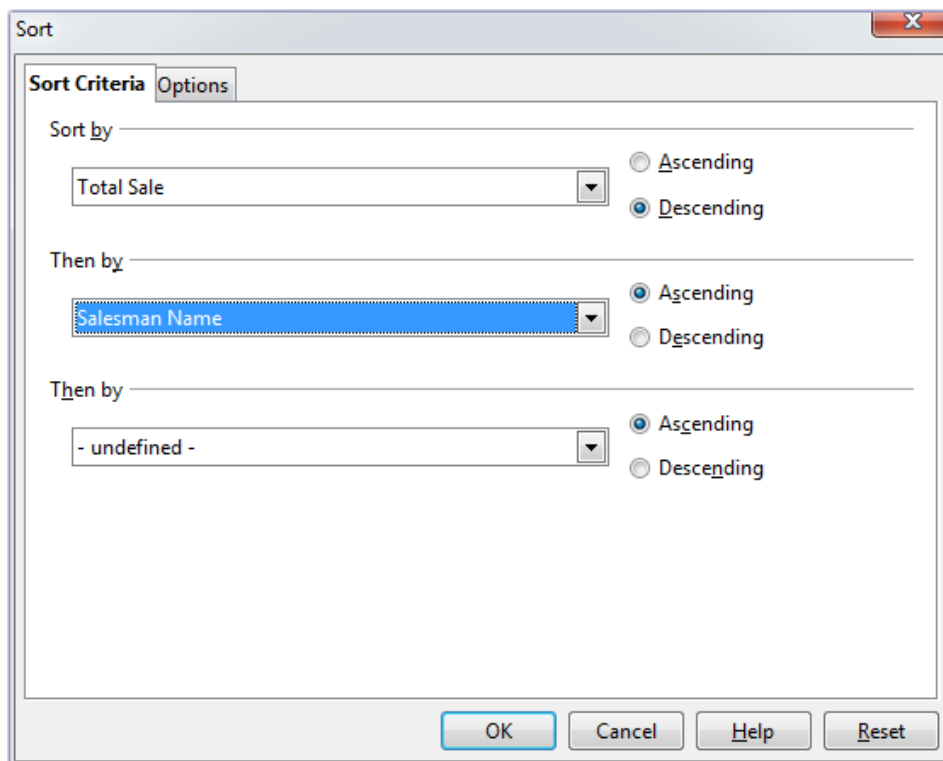


Fig. 59 Multiple columns selected in the **Sort** dialog box

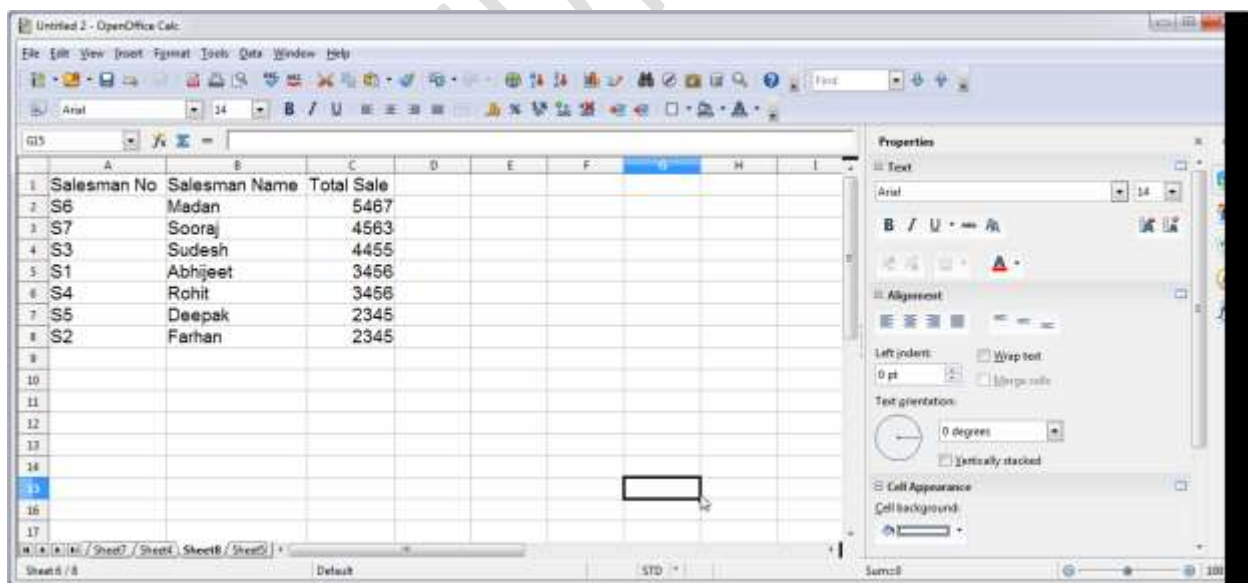


Fig 60 Data sorted on multiple columns

FILTERING DATA

Filtering is a quick and easy way to find and work with selected data based on the criteria you specify. The filter feature selectively blocks out the data you do not want to see and displays only the rows or columns that meet the conditions or criteria you specify. Sorting rearranges the range of cells but filtering only hides temporarily the rows/columns you do not want.

Different ways in which filtering can be done in Clac are:

- AutoFilter
- Standard Filter

AutoFilter

To apply AutoFilter in a worksheet, the steps are:

1. Select cell, say, A1.
2. Select **Data** ➤ **Filter** ➤ **AutoFilter (Fig. 61)**.
3. A drop-down menu arrows appear in each column heading (**Fig 62**).

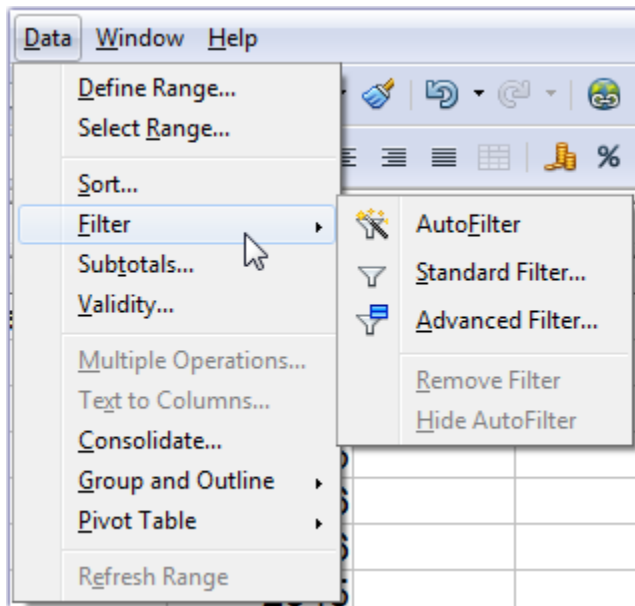


Fig. 61 AutoFilter option in the **Data** menu

	A	B	C	D
1	Salesman No	Salesman Name	Total Sales	
2	S6	Madan	5467	
3	S7	Sooraj	4563	
4	S3	Sudesh	4455	
5	S1	Abhijeet	3456	
6	S4	Rohit	3456	
7	S5	Deepak	2345	
8	S2	Farhan	2345	
9				
10				

Fig. 62 Drop-down menu arrows in column Headings

4. Click the drop-down menu arrow for **Total Sales** and select an item (**Fig 63**).
5. Only those rows whose contents meet the filter criteria are displayed. (**Fig 64**)
 - a. To display all the records again, select the **All** option in the filter drop-down menu.
 - b. Select **Top 10** to display the highest 10 values.

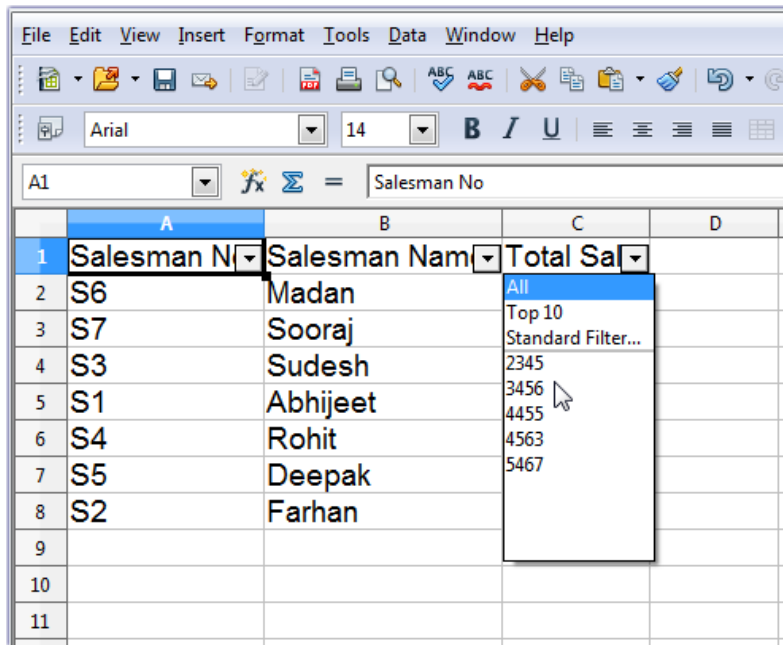


Fig. 63 Drop-down menu for Total

Standard Filter

To apply standard filter in your worksheet, the steps are:

1. Select **Data** ➤ **Filter** ➤ **Standard Filter**. (Fig. 61).
2. The **Standard Filter** dialog box appears (Fig. 64).
 - a. You can use the dialog box to connect multiple conditions with either a logical AND or a logical OR operator.
3. Select the options in the **Standard Filter** dialog box (Fig. 64). The records with Total Sales greater than 4000 will be displayed (Fig. 65).

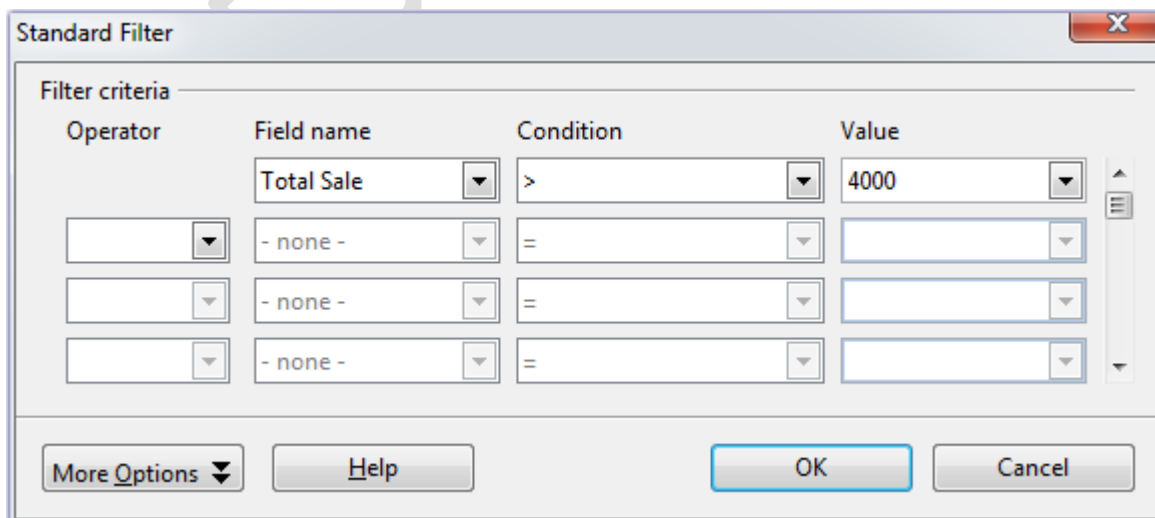


Fig. 64 Standard Filter dialog box

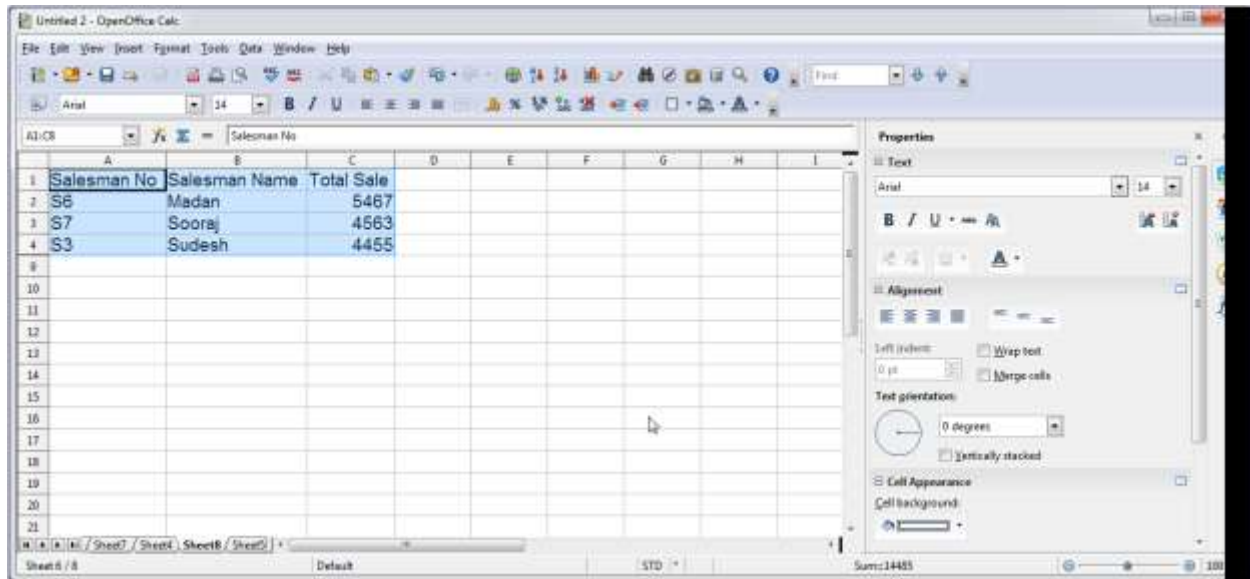


Fig. 65 Rows after applying Standard Filter

To remove the filter,

1. Select **Data** ➤ **Filter** ➤ **Remove Filter (Fig. 66)**.

To hide the filter,

1. Select **Data** ➤ **Filter** ➤ **Hide AutoFilter**.

To remove the filter from column headings,

1. Select **Data** ➤ **Filter** ➤ **AutoFilter**.

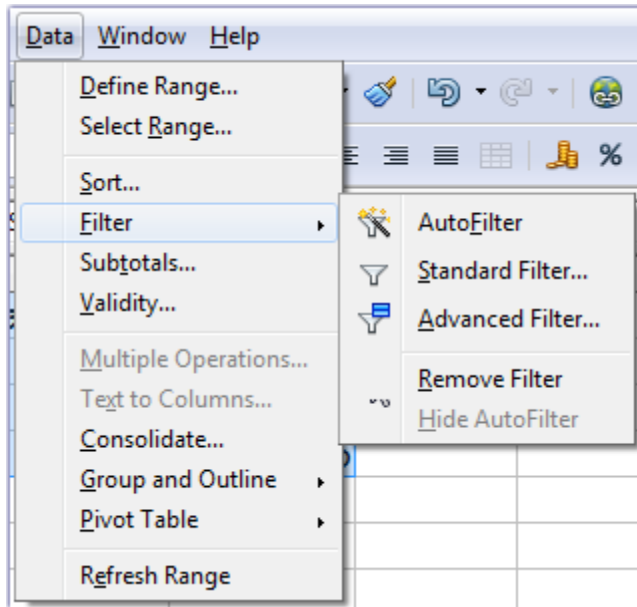


Fig. 66 Remove Filter option

Conditional Formatting

Conditional formatting is a feature in Clac that allows you to set a cell's format according to the conditions that you specify.

For example, using conditional formatting, you can display numbers in a particular color, depending on whether they are greater than, equal to, or less than a certain value.

The steps are:

1. Consider the worksheet given in **Fig. 67**.
2. Select cells. In this worksheet C3 to G7.
3. Select **Format** ➤ **Conditional Formatting (Fig. 68)**.
4. The **Conditional Formatting** dialog box appears (**Fig. 69**).
5. To select the formatting for cell value greater than or equal to 60 :
 - a. Select **New Style** button of Condition 1.

File Edit View Insert Format Tools Data Window Help								
Times New Roman 14 B I U [Alignment Icons] [Numbering Icons]								
J14								
	A	B	C	D	E	F	G	H
1	Student Result							
2	Roll No	Name	English	Hindi	Maths	Science	Social Science	
3	1	Saurabh	67	75	56	66	70	
4	2	Madhur	76	67	60	67	62	
5	3	Tamana	68	66	56	58	60	
6	4	Stuti	70	68	54	62	64	
7	5	Girish	62	70	68	64	68	
8								
9								
10								

Fig 67 Worksheet

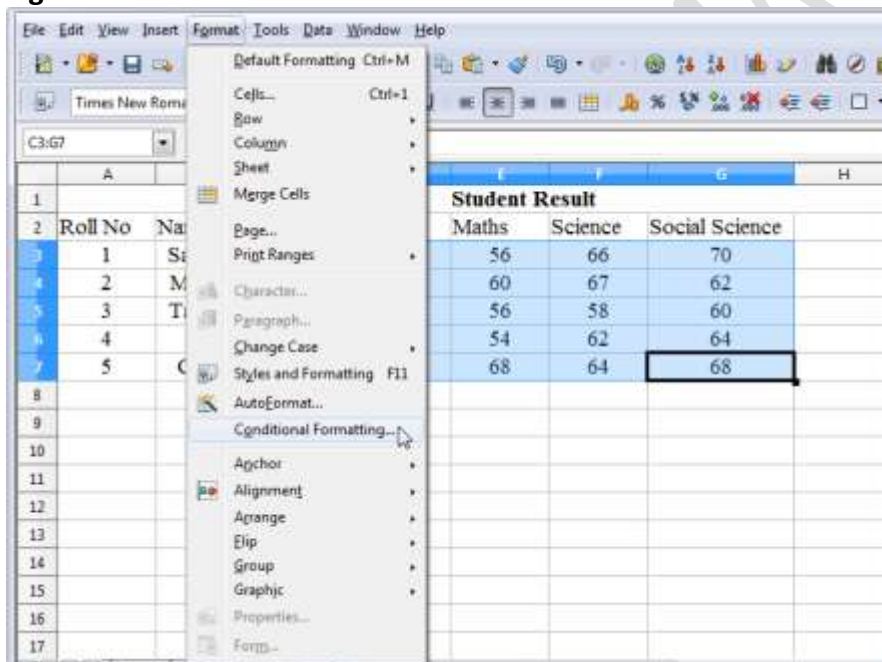


Fig 68 Conditional Formatting option of Format menu

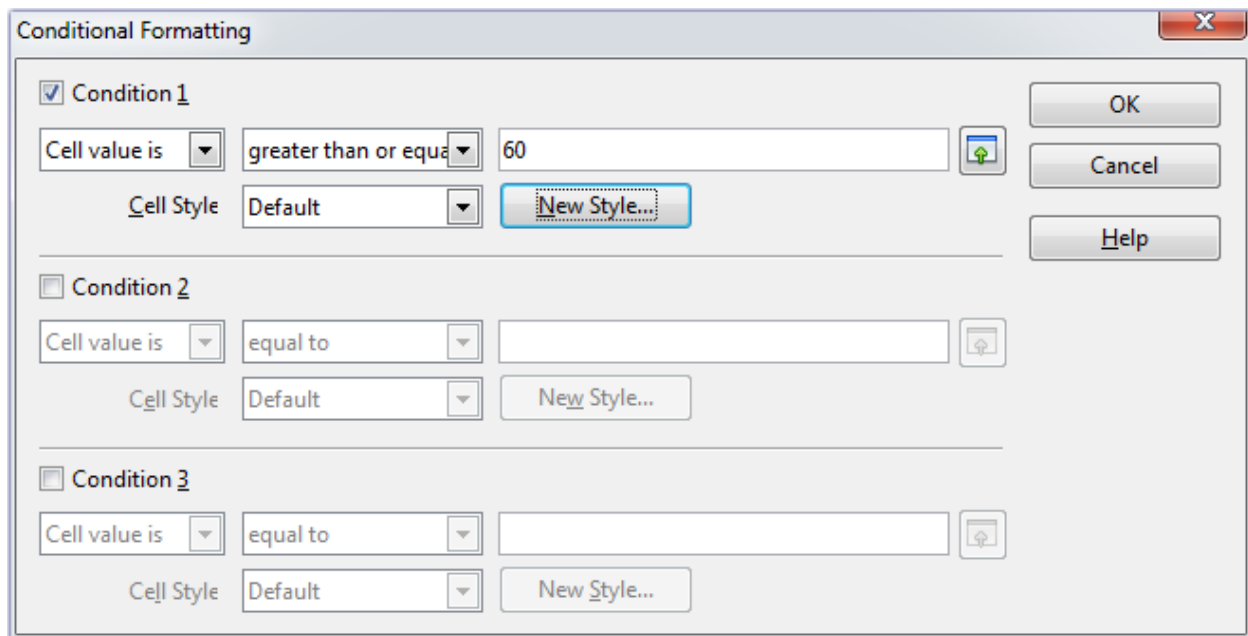


Fig 69 Conditional Formatting dialog box

6. The **Cell Style** dialog box appears (Fig. 70). Select the **Font** tab and click Bold Italic under Typeface.

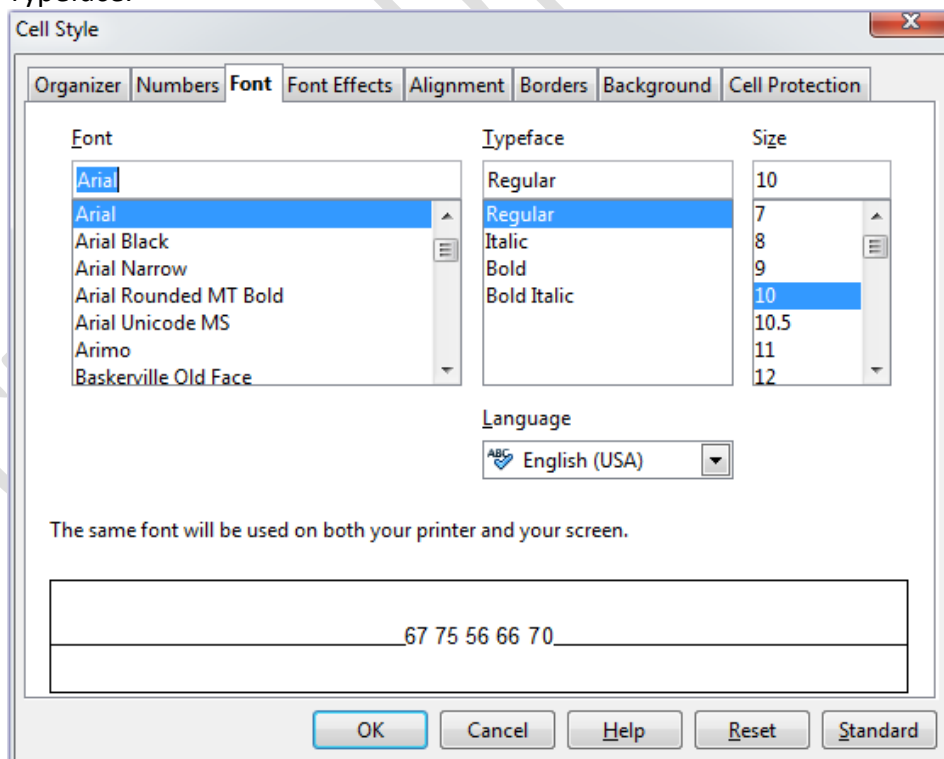


Fig 70 Font tab of Cell Style dialog box

7. Select the **Font Effects** tab and change the font color (Fig 71).
8. Select the **Background** tab and click Black. (Fig 72)
9. Click **OK**.

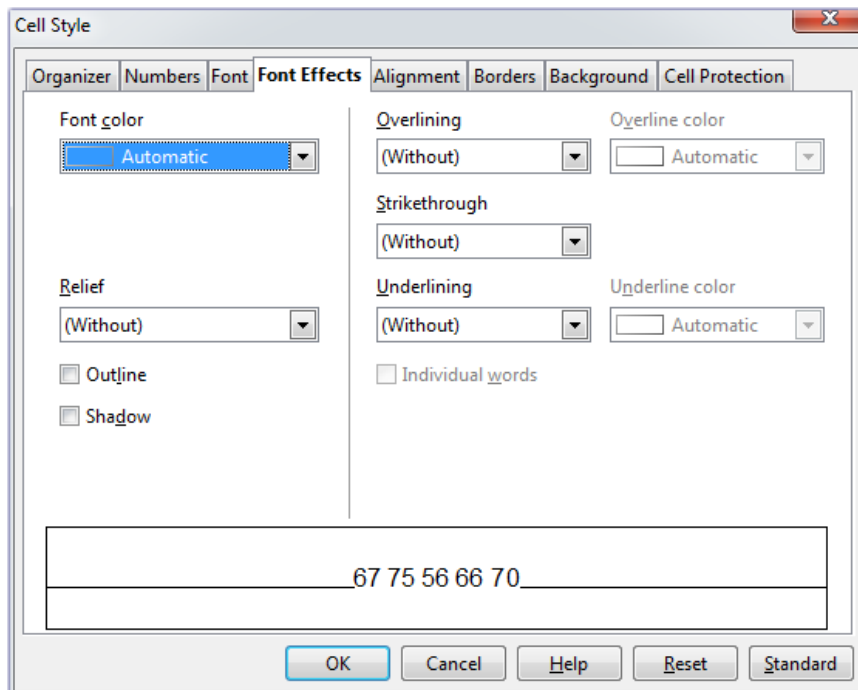


Fig. 71 Font Effects tab of Cell Style dialog box.

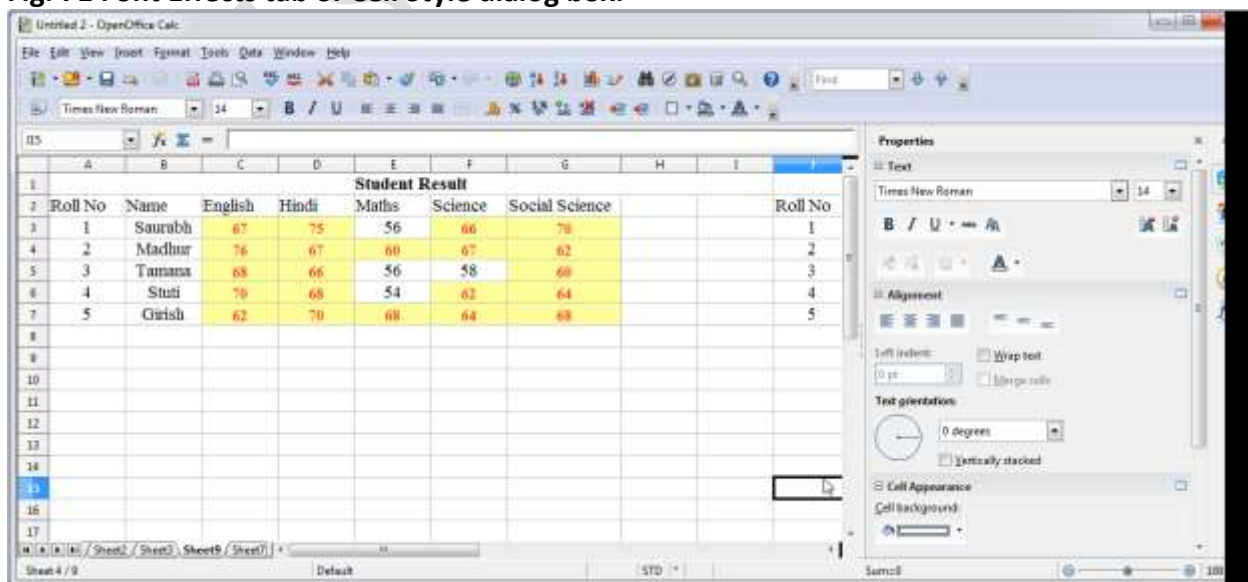


Fig 72 background tab of Cell Style dialog box

7. Click OK. The Conditional Formatting dialog box appears. Click **OK**. The worksheet will appear as in **Figure 73**.

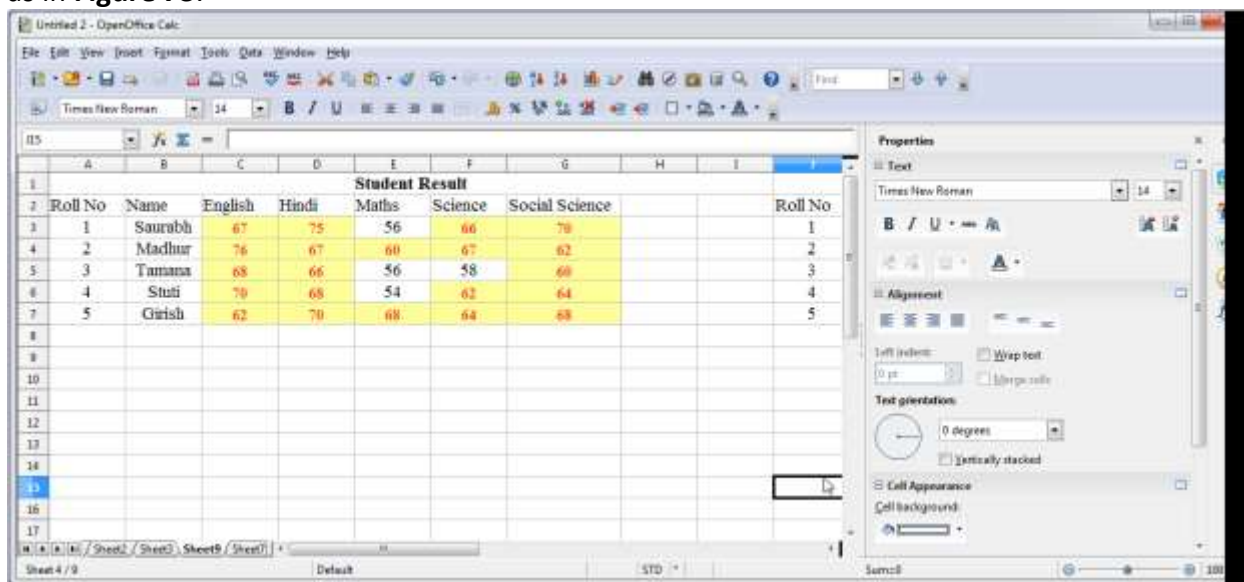


Fig. 73 Conditional formatting applied

Lets Try It

1. Create the following worksheet and perform the following operations:

	A	B	C	D
1	S. No	Mountain	Height in mm	
2	1	Mount Manaslu	8163	
3	2	Mount Everest	8848	
4	3	Mount kanchenjunga	8586	
5	4	Mount K2	8611	
6	5	Nanga Parbat	8125	
7				
8				
9				

- a. Sort the table in ascending order of height.
- b. Filter the data to view only those rows where height is more than 8500 m.

2. Create the following worksheet and perform the following operations

	A	B	C	D	E	F	G	H
1	Student Result							
2	Roll No	Name	English	Hindi	Maths	Science	Social Science	
3	1	Pratham	74	45	44	65	56	
4	2	Keerath	68	56	60	67	62	
5	3	Shreya	56	67	56	55	59	
6	4	Jigyasa	45	55	44	56	58	
7	5	Utkarsh	67	70	48	63	61	
8								
9								

- Filter the records according to the following condition:
 - Numbers greater than 60 should in bold, size 14 and green color.
- Add another column at the end with heading 'Total marks'
- Calculate total marks for each student.
- Now, arrange the data in descending order of Total marks.

Session 1

Introduction to Presentation Software

A **presentation** is a systematic display of information. It consists of a number of slides containing text, graphics, movies, sound, and graphs. Slides of a presentation are displayed one by one on the screen.

Some common terms used in a Presentation software are:

Slides are the individual pages of a presentation. Each slide may contain text, graphics, movies, and sound.

Handouts are very small images of slides printed together on a sheet of paper, which can be given to the viewers for reference.

Speaker notes are notes added to the slides as a reference for the presenter. They are not visible to the audience during a presentation.

There are different softwares like MS Powerpoint, OpenOffice Impress that can be used to create a presentation.

You will learn how to create a simple presentation in OpenOffice Impress.

OpenOffice Impress is a part of the OpenOffice.org suite. It is used for creating effective multimedia presentations.

STARTING OPENOFFICE IMPRESS

To start OpenOffice Impress,

1. click **Start** ➤ **All Programs** ➤ **OpenOffice.org 4.1.5** ➤ **OpenOffice.org Impress**.
2. The **Presentation Wizard** dialog box appears (**Fig 1**). Select the desired option from the following:
 - a. **Empty presentation** - Choosing this option starts a new blank presentation.
 - b. **From template** – You can choose this option to create a presentation using a predesigned template.
 - c. **Open existing presentation**- You can choose this option to open an already saved presentation that you can work on.
3. Select **Empty Presentation**.
4. Click **Create**.

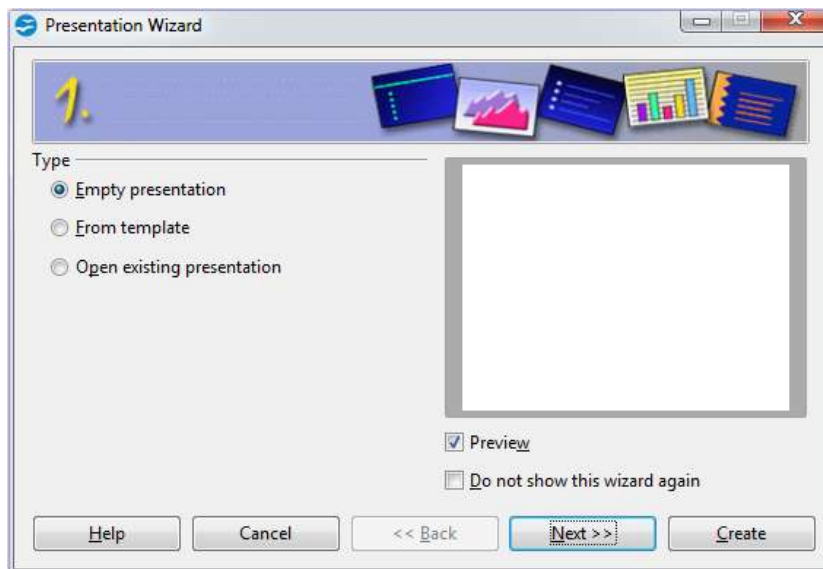


Fig 1 Presentation Wizard dialog box

5. The Impress window screen appears with a blank presentation named **Untitled 1** by default (Fig. 2).

Components of OpenOffice Impress Window

The various components of the Impress window are shown in **Figure 2**.

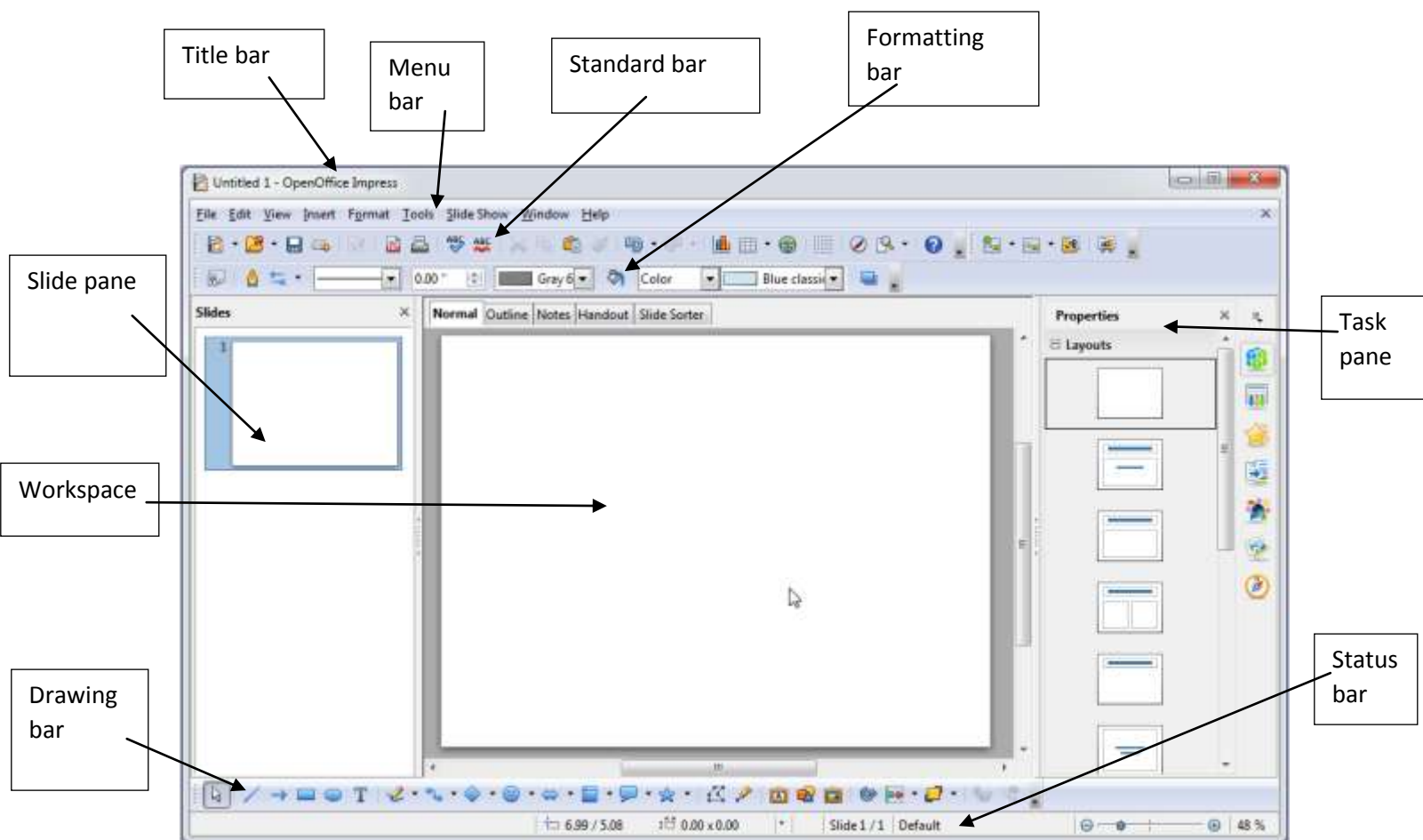


Fig. 2 OpenOffice.org Impress window

Title bar It is located at the top and displays the name of the application and the name of the current document

Menu bar It is located below the Title bar and contains different menu options.

Standard bar It contains icons for the most commonly used commands.

Formatting bar It contains the buttons for the commonly used formatting commands.

Slide pane It is located at the extreme left and shows the thumbnail view of various slides in a presentation.

Drawing bar It contains the buttons for the most commonly used drawing tools.

Workspace It is the main work area to create or modify individual slides

Task pane It is positioned to the right. It contains features such as slide layout and slide transition to format the slides.

Status bar It is positioned at the bottom and displays information such as slide number and zoom level.

ADDING SLIDES TO A PRESENTATION

Inserting a New Slide

You can insert a new slide in OpenOffice.org Impress presentation in any one of the following ways:

- Select **Slide** option from the **Insert** menu. (Fig 3)
- Right-click on a slide in the **Slide** pane and select **New Slide** in the shortcut menu. (Fig 4)
- Click on the **Slide** icon on the **Standard** bar. (Fig 5)

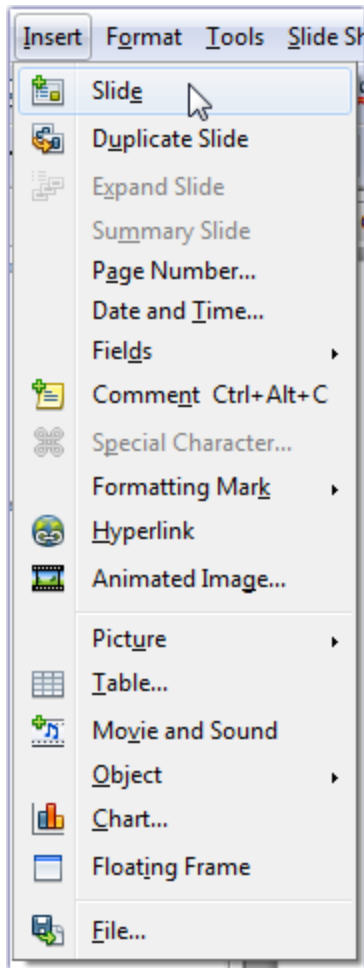


Fig 3 Slide option of Insert menu

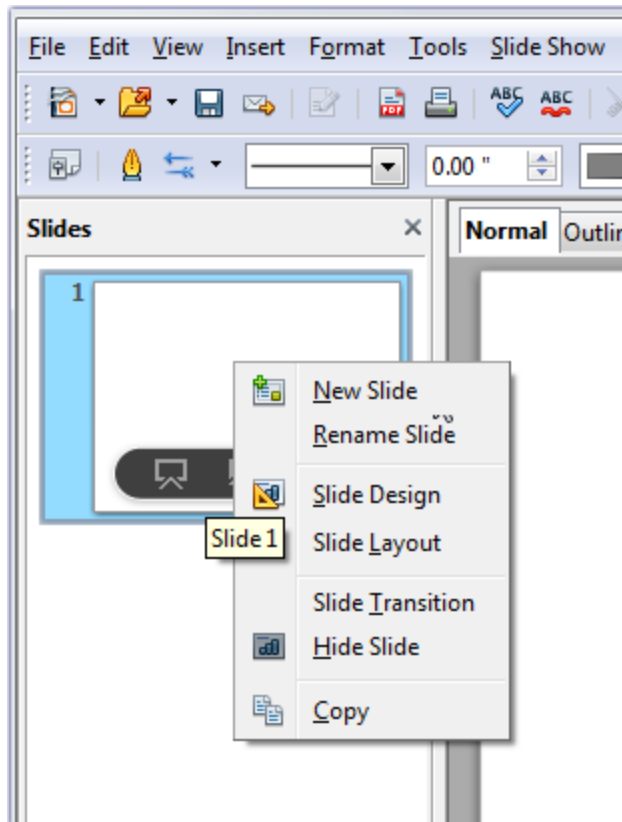


Fig 4 Shortcut menu

Slide icon



Fig 5 Slide icon on Standard bar

Deleting a Slide

To delete a slide:

1. Select the slide in the Slide pane.
2. Press **Delete** key.

Changing the Slide Layout

To change the slide layout in Impress, the steps are:

1. Select the slide.
2. Click the **Slide Layout** icon on the **Standard** bar. (Fig 6)
3. Different slide layouts are displayed. Click on a suitable layout.

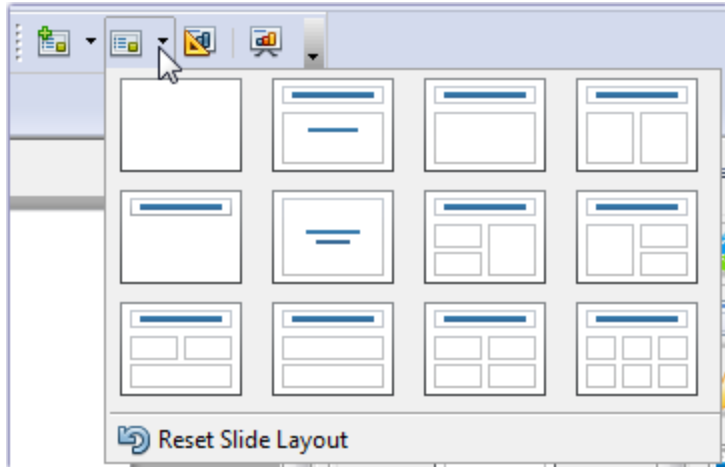
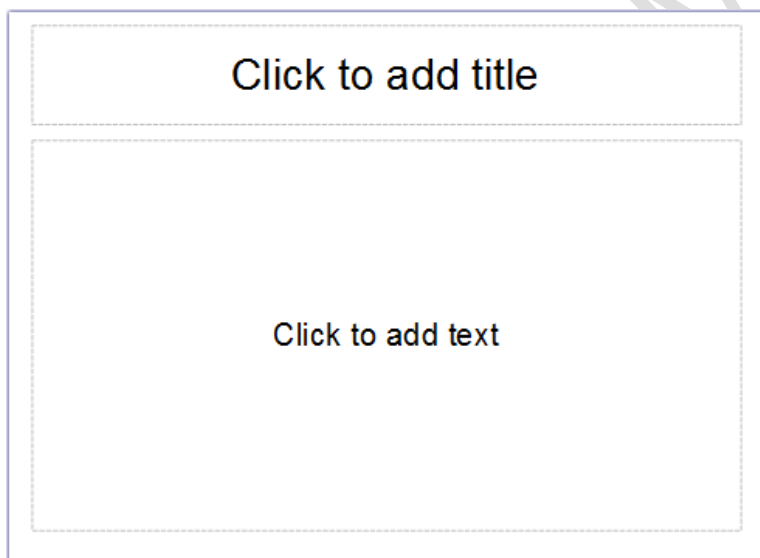


Fig 6 Selecting Slide Layout

Entering text in a slide

You can enter text in a text box in a slide.



If you have selected a blank slide, you can insert a text box at the desired position.

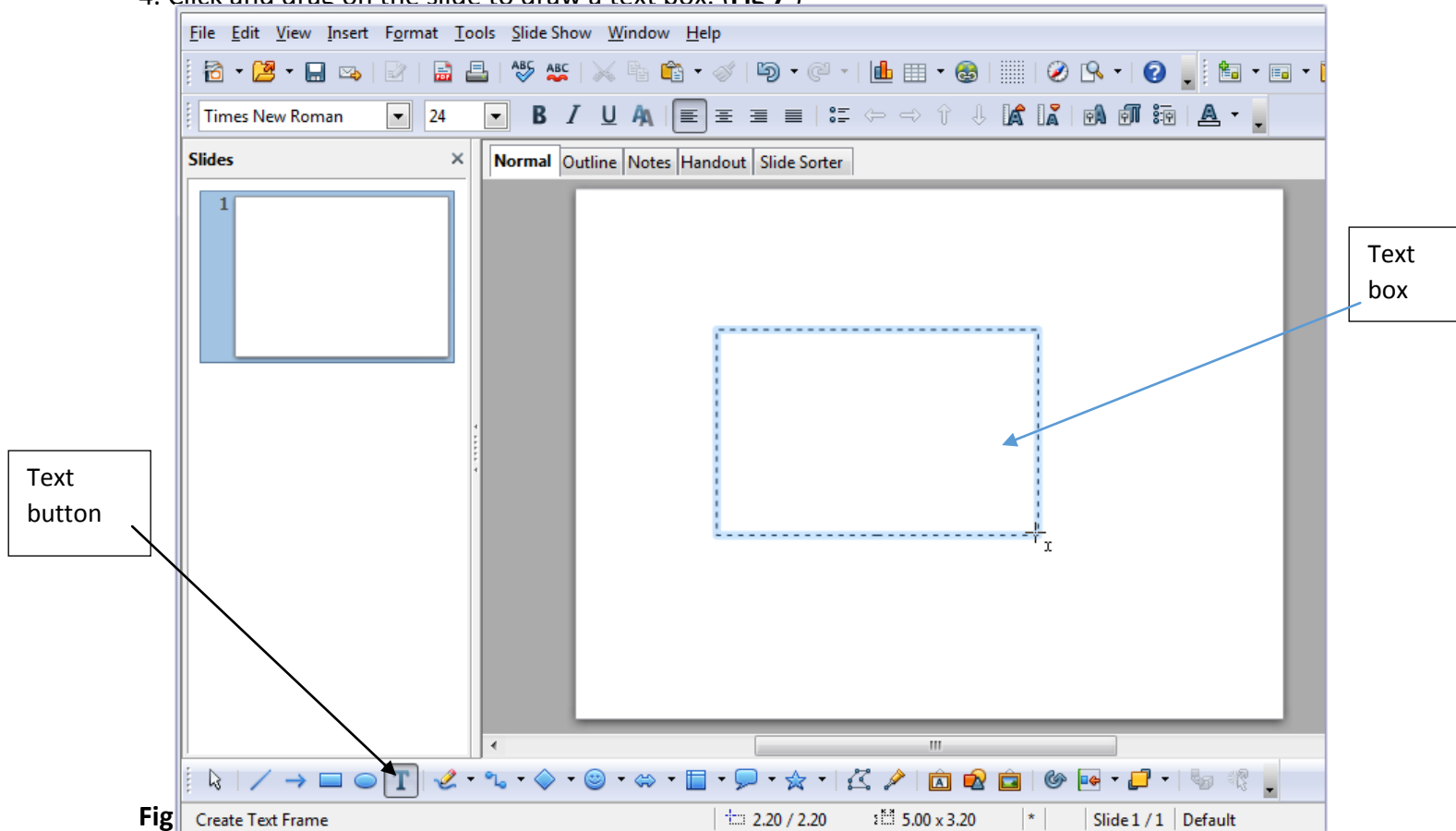
Inserting a Text Box

You can insert a Text box using Text button on the Drawing bar. If the **Drawing** bar is not visible, select **View** ➤ **Toolbars** ➤ **Drawing** to make it visible.

The steps to insert a text box in a slide are:

1. Click the **Text** button on the **Drawing** bar.

2. The mouse pointer changes to + the sign.
3. Place the mouse pointer on the slide where you want to add the text box.
4. Click and drag on the slide to draw a text box. (**Fig 7**)

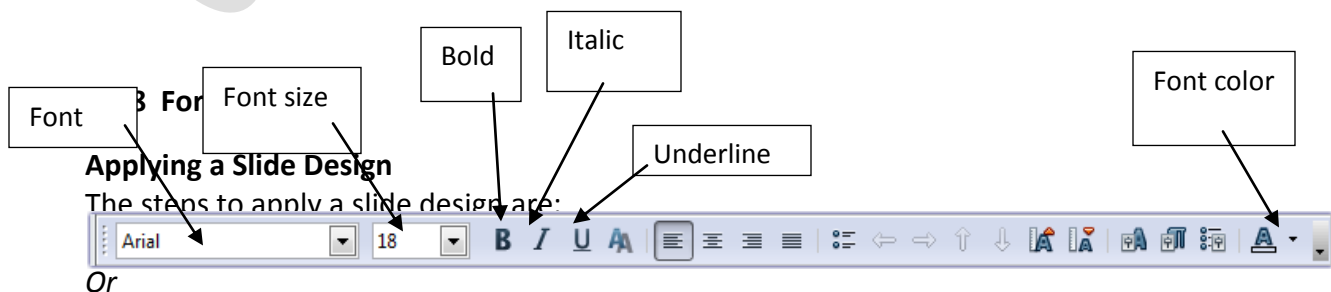


Fig

Editing and Formatting Text

Like OpenOffice Writer, OpenOffice Impress includes all the basic editing features —copy, move, insert, delete, spell-check, etc. You can also format the text, i.e. change the font, style, size, font color, etc.

You can use the formatting options in the Formatting bar to change the font, size and color of the text (**fig 8**)



Click the **Slide Design** button on the **Standard** bar. (Fig 10)

Or

Right-click on any slide in the **Slide** pane and select **Slide Design** in the shortcut menu. (Fig 11)

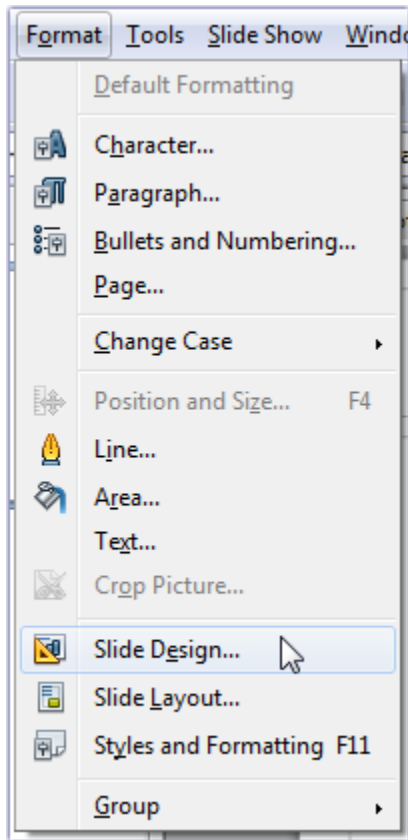


Fig 9 Slide Design option from the Format menu



Fig 10 Slide design button on the Standard bar

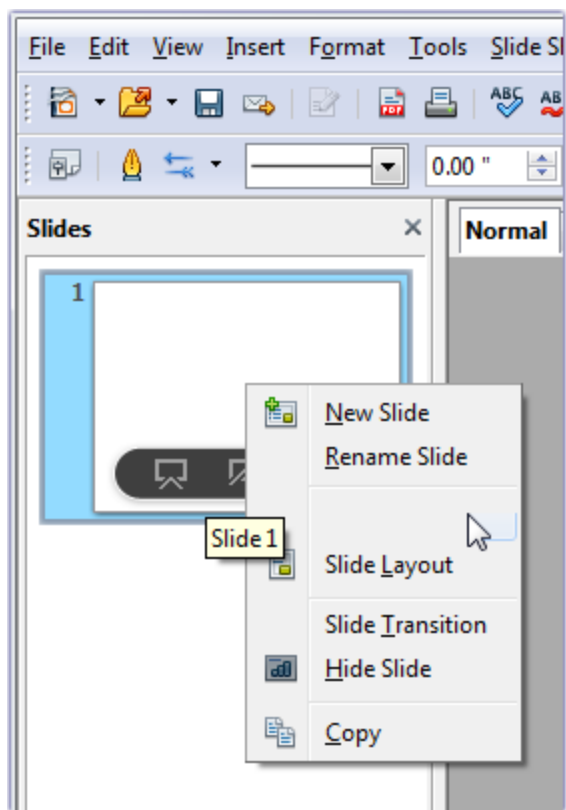


Fig 11 Shortcut menu

2. The **Slide Design** dialog box appears (**Fig. 12**).

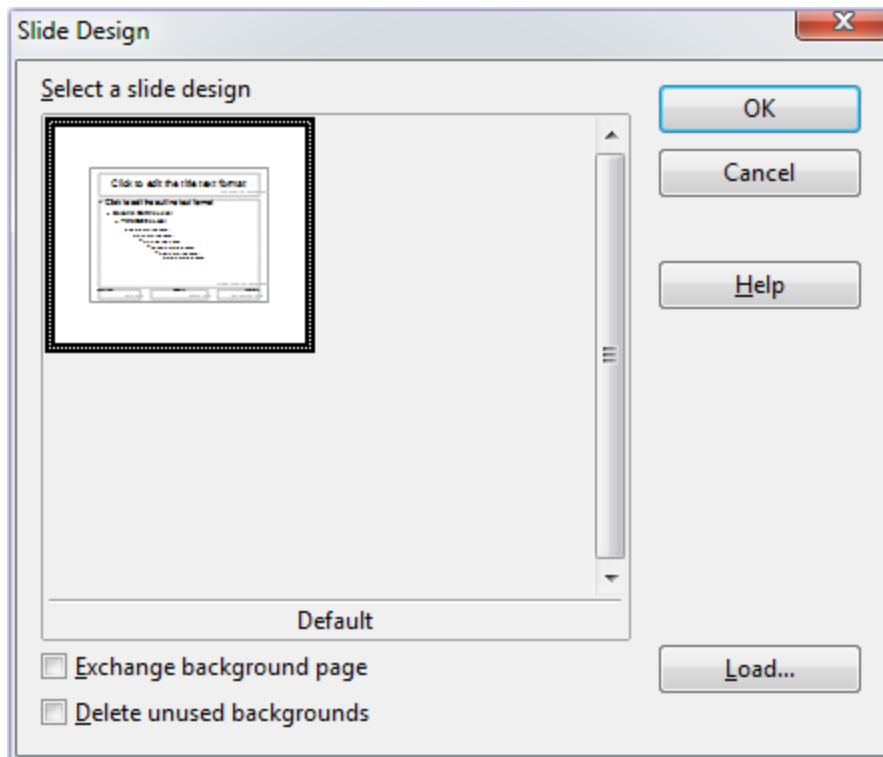


Fig. 12 Slide Design dialog box

3. Click the **Load** button. The **Load Slide Design** dialog box appears (Fig 13)

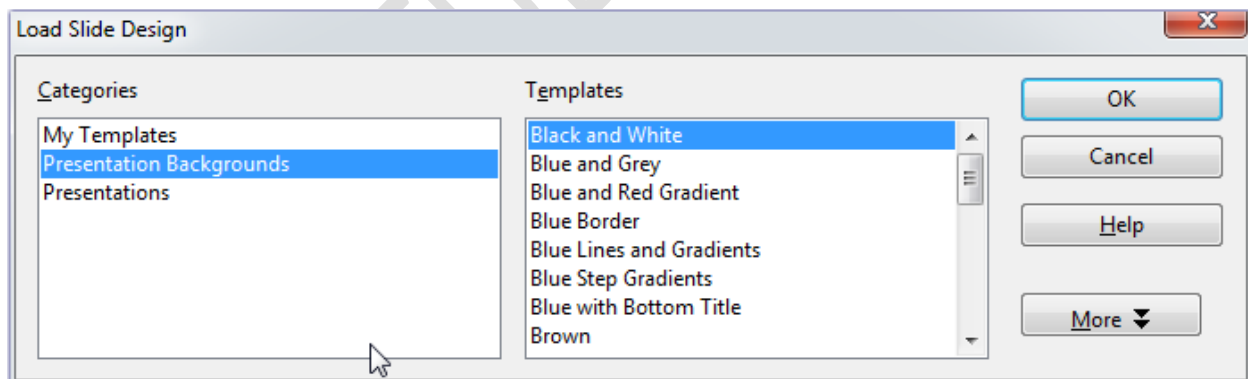


Fig. 13 Load Slide Design dialog box

4. Select **Presentation Backgrounds** in the **Categories** section. Select the desired template from the list. You can also click **More** to get the **Preview** box. Select the **Preview** checkbox (Fig. 14).

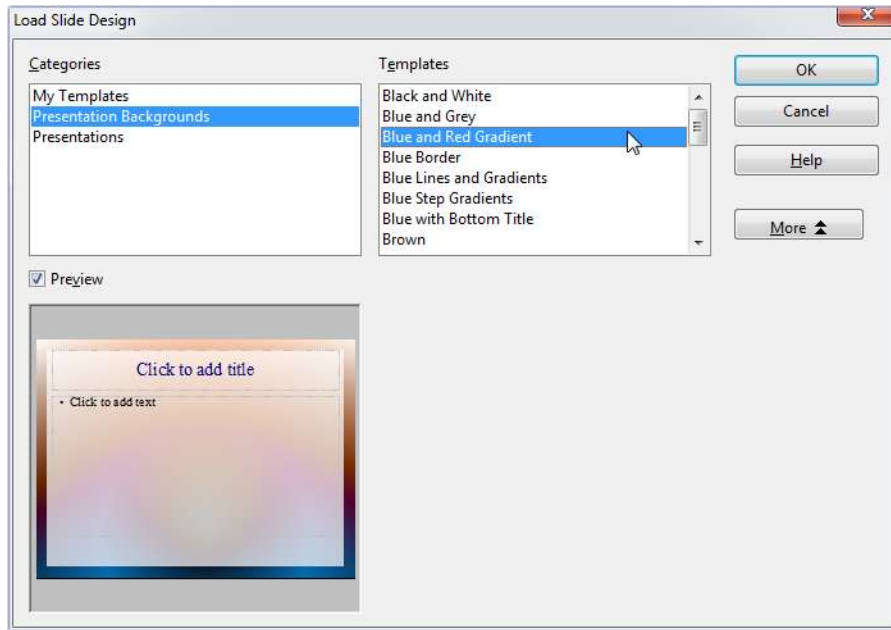


Fig 14 Preview option in the Load Slide Design dialog box

4. Click **OK**. The **Slide Design** dialog box reappears.
5. Click **OK**.

Changing Background Style

The steps to change the slide background in OpenOffice.org Impress, are:

1. Select **Page** option from the **Format** menu. (Fig 15)
2. The **Page Setup** dialog box appears.
3. Click the **Background** tab.
3. Click the **Fill** drop-down menu arrow and choose the desired fill effect (Fig. F8-16).

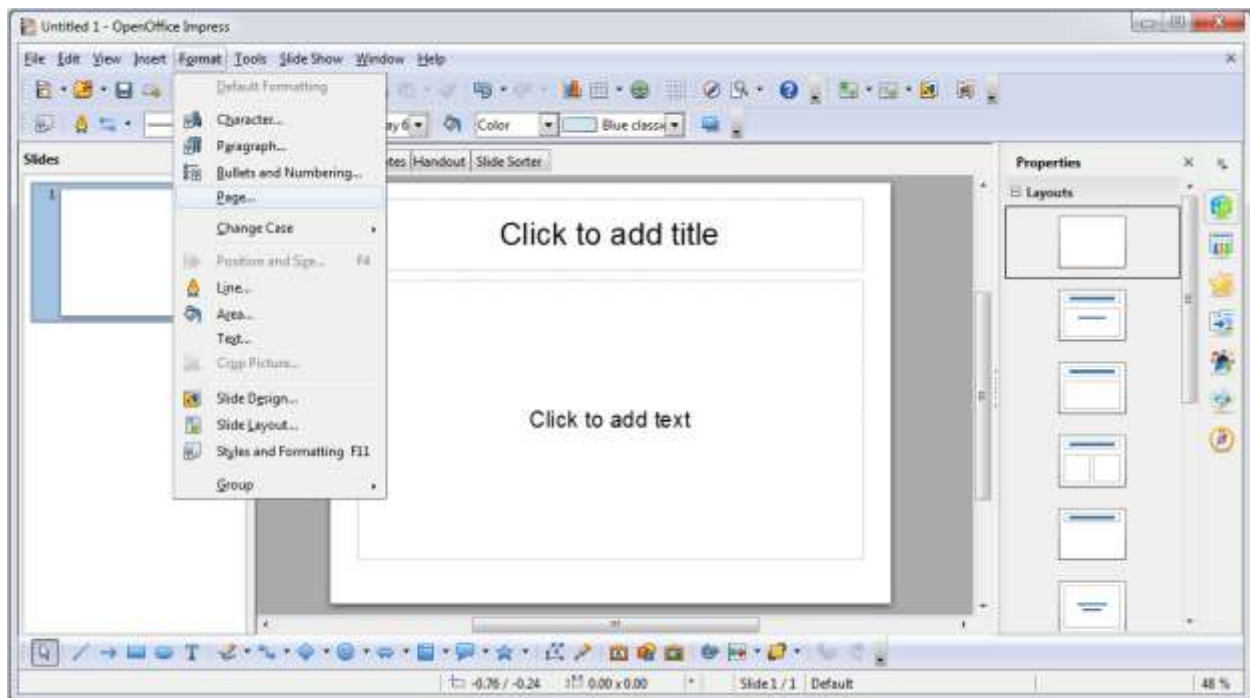


Fig 15 Page option of Format menu

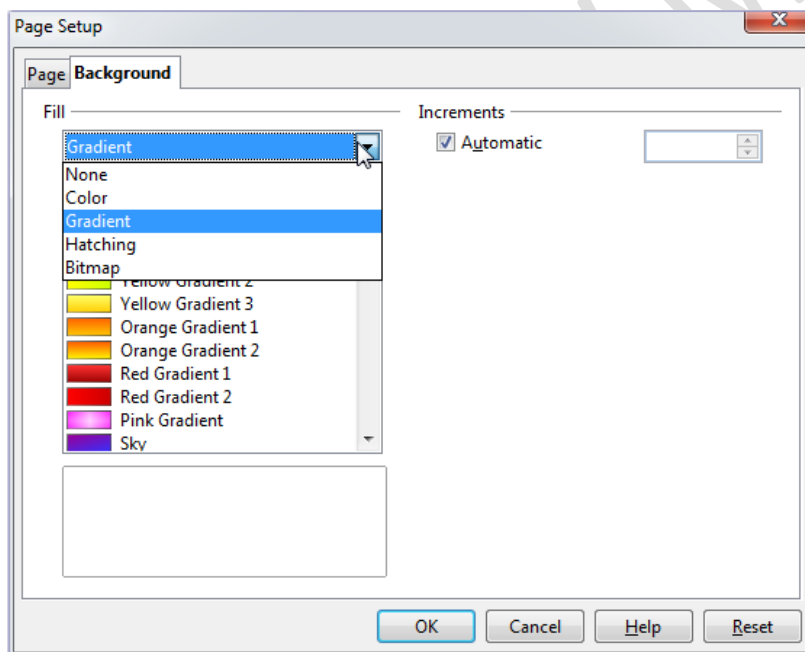


Fig. 16 Background tab of Page Setup dialog box

4. A message box appears (**Fig. 17**). Click **Yes** if you want to use the selected background style for all the slides. Click **No** if you want to set it only for the current slide.

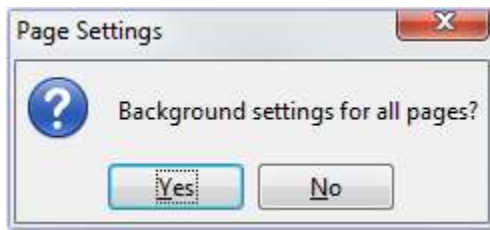


Fig. 17 Page Settings message box

SAVING A PRESENTATION

The steps to save a presentation are as follows:

1. Select Save option from the File menu.

Or

Click the **Save** button on the **Standard** bar.

Or

Press Ctrl + Shift + S.

2. The **Save As** dialog box appears. (**Fig 18**) Select the drive and the folder where you want to save the presentation.

3. Give a name to the file in the **File name** text box.

4. Click **Save**. Your presentation will be saved with a **.odp** extension.

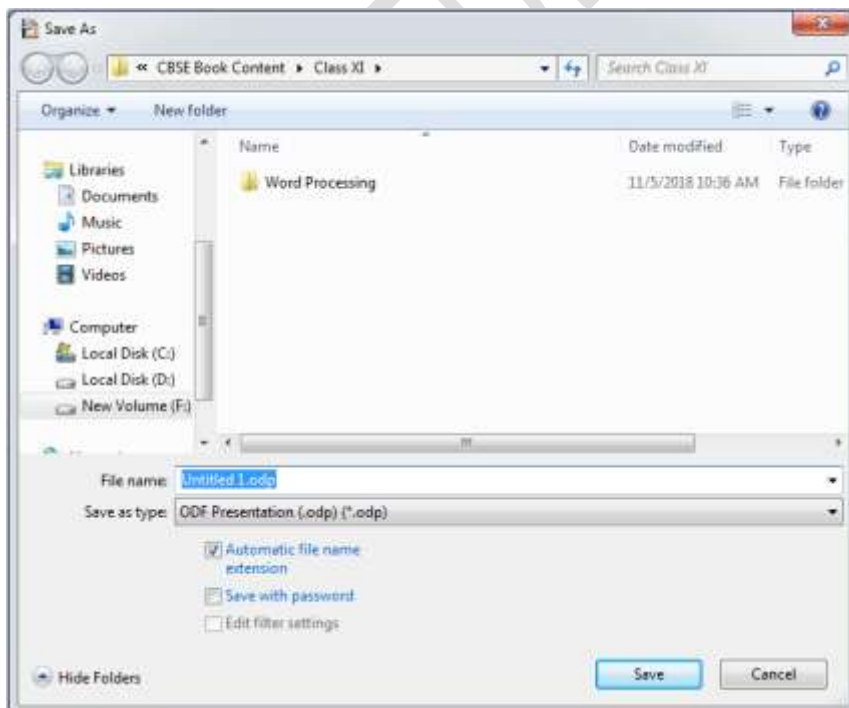


Fig 18 Save As dialog box

CLOSING A PRESENTATION

A presentation can be closed in any one of the following ways:

- Select Close option from the File menu.
- Click the **Close Document** button on the right side of the **Menu** bar.

EXITING IMPRESS

To exit OpenOffice.org Impress, the steps are:

- Select **Exit** option from **File** menu.

Or

- Click the **Close** button at the top-right corner of the **Title** bar.

OPENING A PRESENTATION

To open an already saved presentation the steps are:

1. Select **Open** option from the **File** menu.

Or

Click the **Open** button on the **Standard** bar.

Or

Press Ctrl + O.

2. The **Open** dialog box appears. (Fig 19) Select the file and click **Open**.

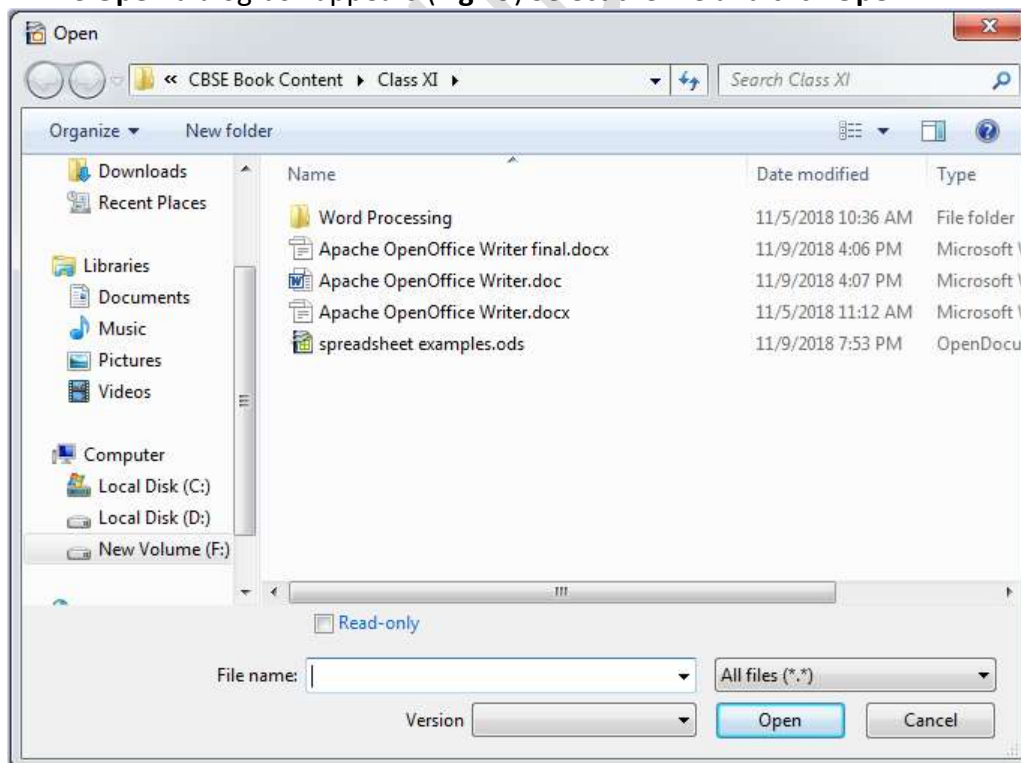


Fig 19 Open dialog box

Lets Try It

1. Create a new blank presentation.
 - a. Add 4-5 slides on the topic Pollution’.
 - b. Change the slide design.
 - c. Select desired font, size, and color for the text and the heading.
 - d. Save the presentation.

Worksheet

1. Name any two softwares used for creating presentation.

2. What do you mean by a slide?

3. Name the bar present at the top of the Impress window.

4. How can you delete a slide?

5. Write keyboard shortcut to save a presentation.

Session 2

VIEWING AND ORGANIZING SLIDES

A presentation in OpenOffice Impress can be viewed in following ways:

Normal View

The **Normal** view is the default view that is used to create and edit slides. This view has three panes:

- **Slide** pane,
- **Task** pane, and
- the **Workspace** showing the current slide.

To open the **Normal** view (**Fig. 20**):

- Select **Normal** option from the **View** menu.

Or

- Click the **Normal** tab above the workspace.

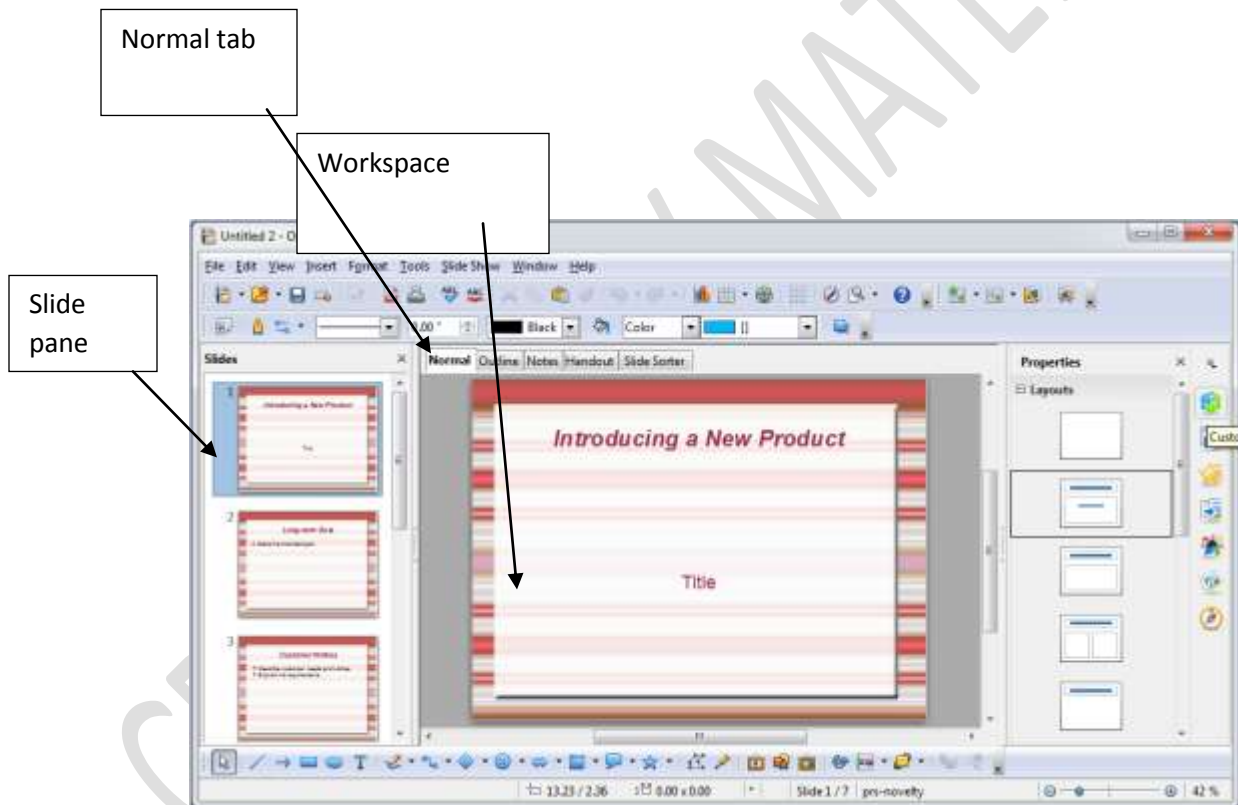


Fig. 20 Normal view

Outline View

The **Outline** view shows the **Slide** pane and textual content of all the slides in a presentation.

The steps to open the **Outline** view are: (**Fig. 21**):

- Select **Outline** option from **View** menu.

Or

- Click the **Outline** tab above the workspace.



Fig. 21 Outline view

Notes View

The **Notes** view is used to add notes to a slide. These notes are not visible to the audience during the slide show.

To enter notes in a slide (**Fig. 22**), follow these steps:

1. Select Notes Page option from View menu.

Or

Click the **Notes** tab above the workspace.

2. Select a slide from the **Slide** pane.
3. Click and type the notes in the space provided.

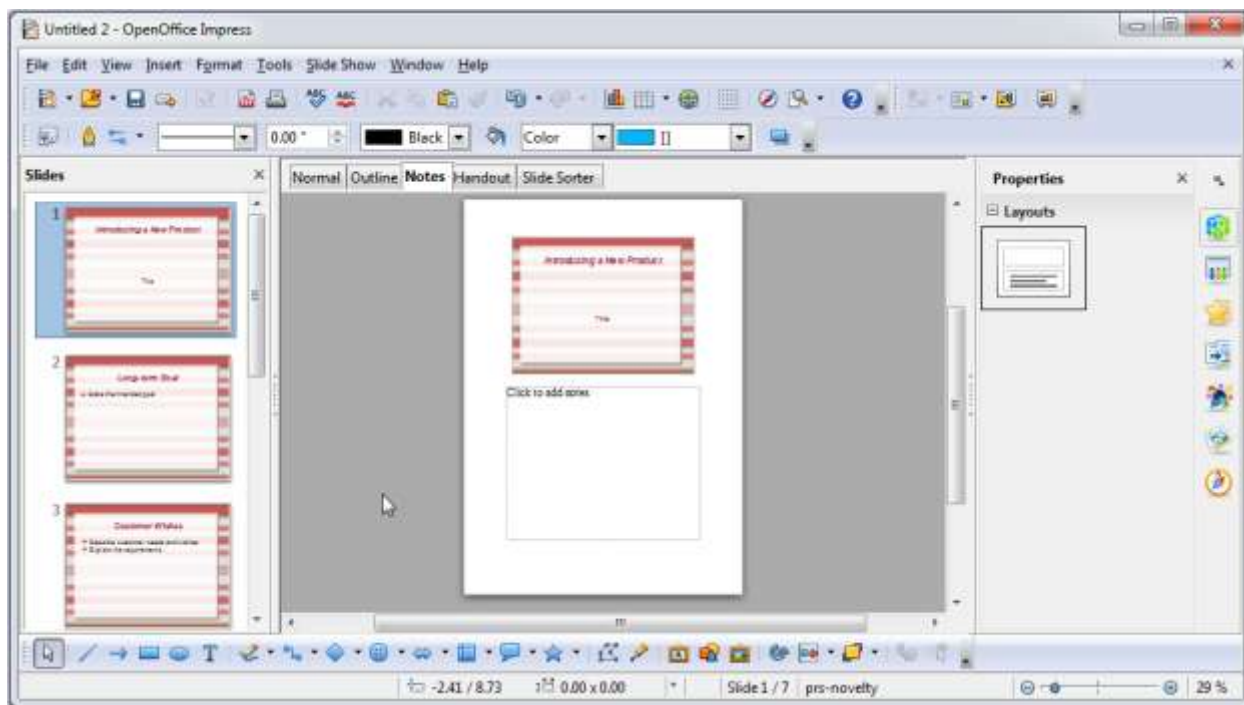


Fig. 22 Notes view

Handout View

In the **Handout** view, you can adjust the number of slides to be printed on each page.

To open the **Handout** view (**Fig. 23**):

- Select **Handout Page** option from the **View** menu.

Or

- Click the **Handout** tab above the workspace.

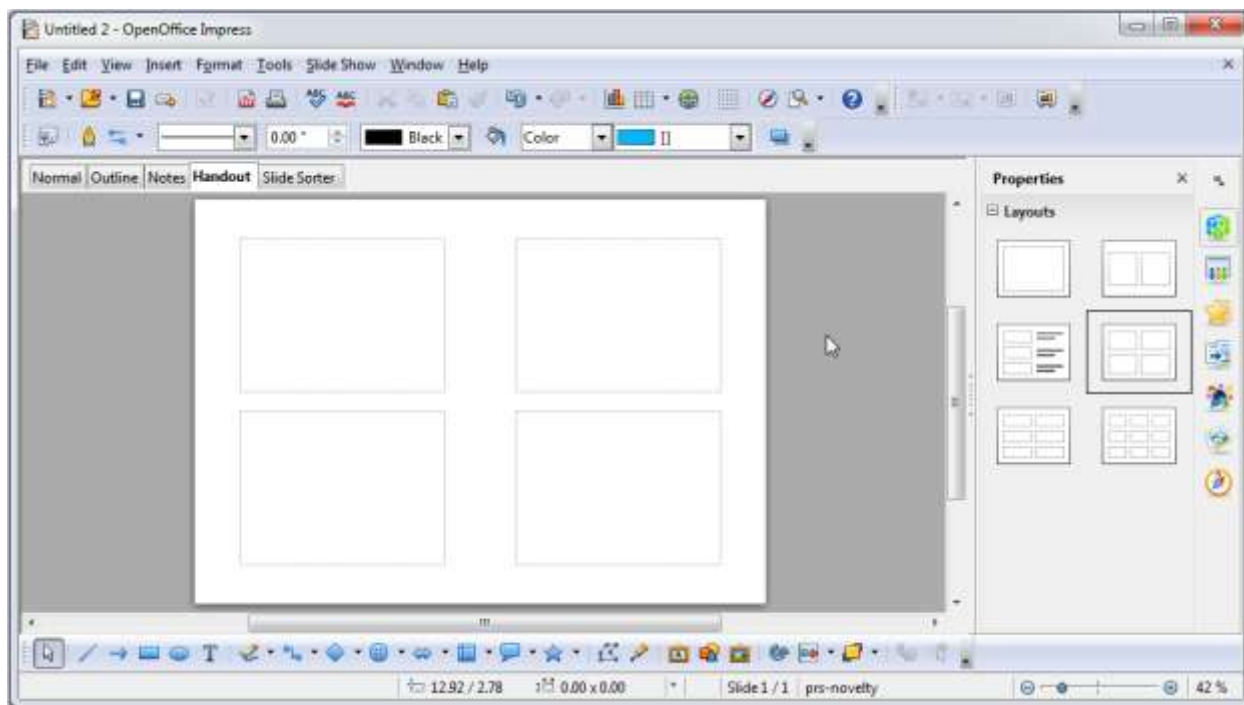


Fig. 23 Handout view

Slide Sorter View

The **Slide Sorter** view displays miniature forms of all the slides in a presentation.

To open the **Slide Sorter** view (**Fig. 24**):

- Click the **View** button and then click **Slide Sorter** in the drop-down menu.

Or

- Click the **Slide Sorter** tab above the workspace.

In this view, you can easily delete a slide, change the order of the slides, insert a new slide.

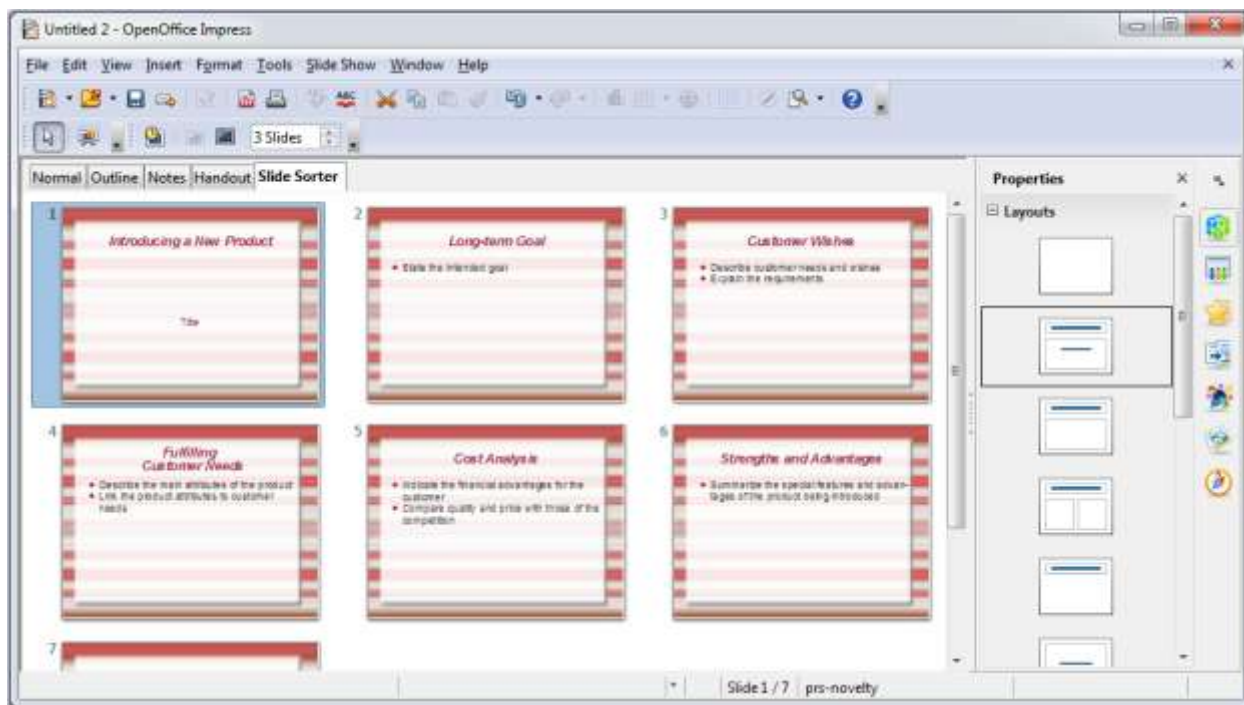


Fig. 24 Slide Sorter view

Commands used in **Normal** and **Slide Sorter** views

Action

Select consecutive multiple slides

Select non-consecutive multiple slides

Delete slide(s)

Move slide(s)

Option

Hold down the SHIFT key and select the slides.

Hold down the CTRL key and select the slides.

Select slide(s) and press the DELETE key.

Select the slide(s) and drag to the new location.

INSERTING IMAGES

You can insert image in a slide using any one of the following ways:

- Gallery
- From File

Inserting Images Using Gallery

The steps to insert an image using the gallery are:

1. Select **Gallery** option from the **Tools** menu. (**Fig 25**)

Or

Click the **Gallery** icon on the **Drawing** bar. (Fig 26)

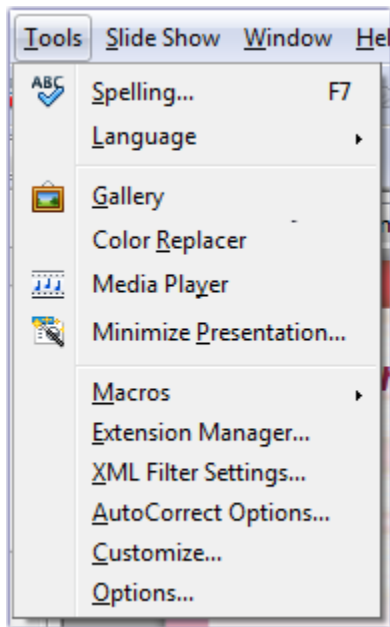


Fig 25 Gallery option of Tools menu



Fig 26 Drawing bar

2.The **Gallery** appears above the workspace (Fig. 27).

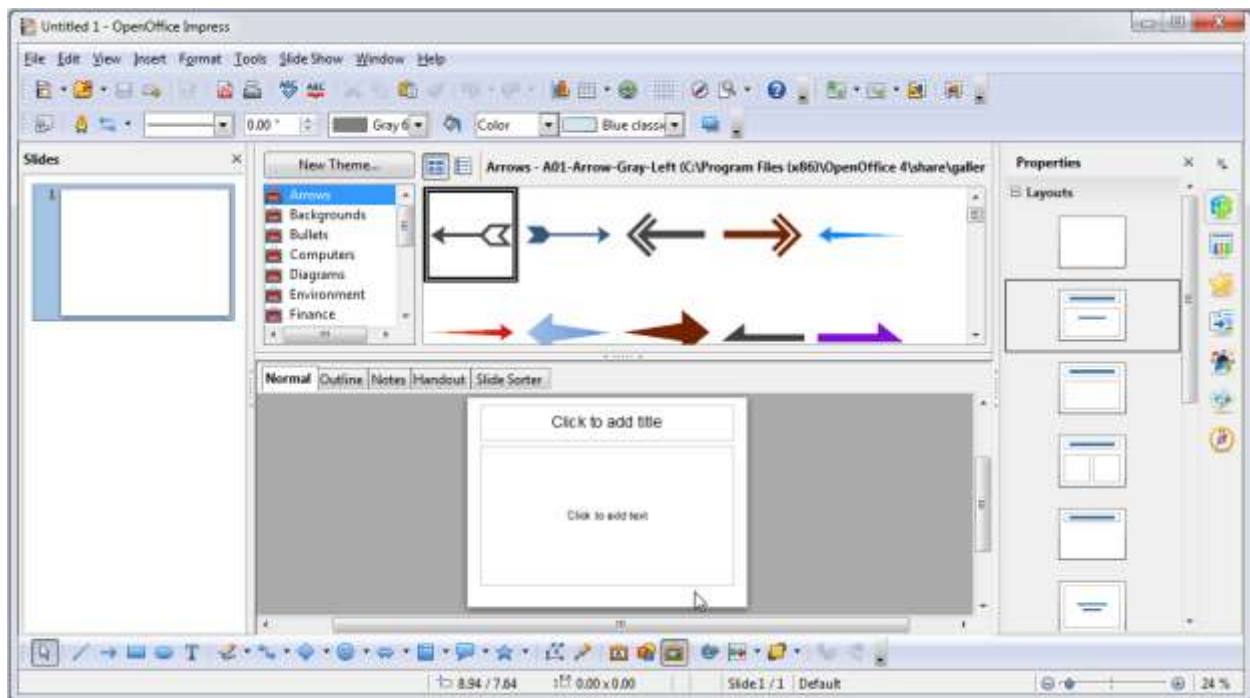


Fig 27 Gallery

3. Select the theme from the left section of the gallery area. The images of that theme will get listed on the right side.
4. Click on the required image. Drag the image and drop it on the slide.
5. To close the Gallery, select **Tools Gallery**.

Inserting Pictures from File

The steps to insert a picture from a file are:

1. Select **Insert ➤ Picture ➤ From File**.
2. The **Insert picture** dialog box appears (**Fig. 28**).
2. Locate the picture you want to insert and click **Open**.

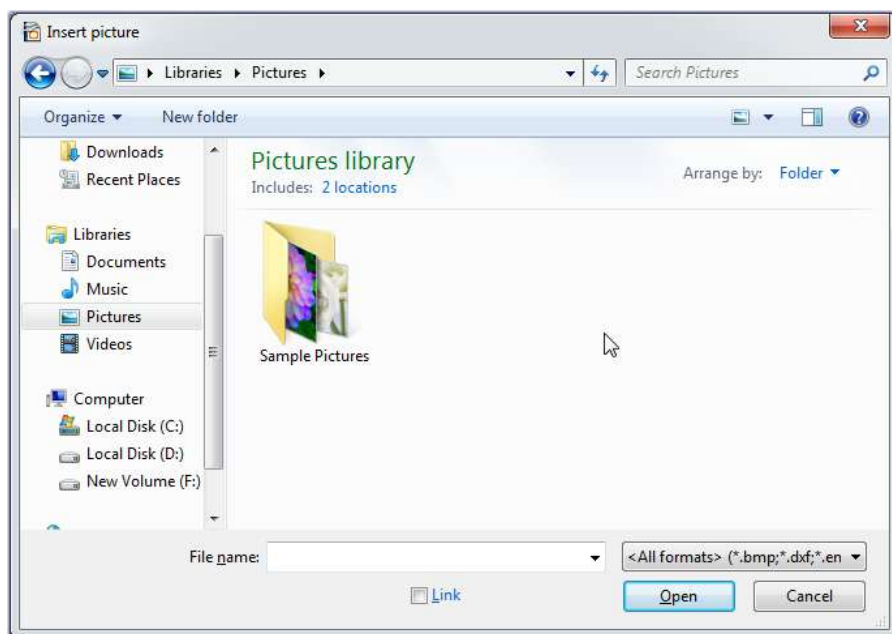


Fig. 28 Insert picture dialog box

Editing a Picture

When you select a picture, **Picture** toolbar appears (**Fig. 29**). You can use the tools of this toolbar to edit the picture.

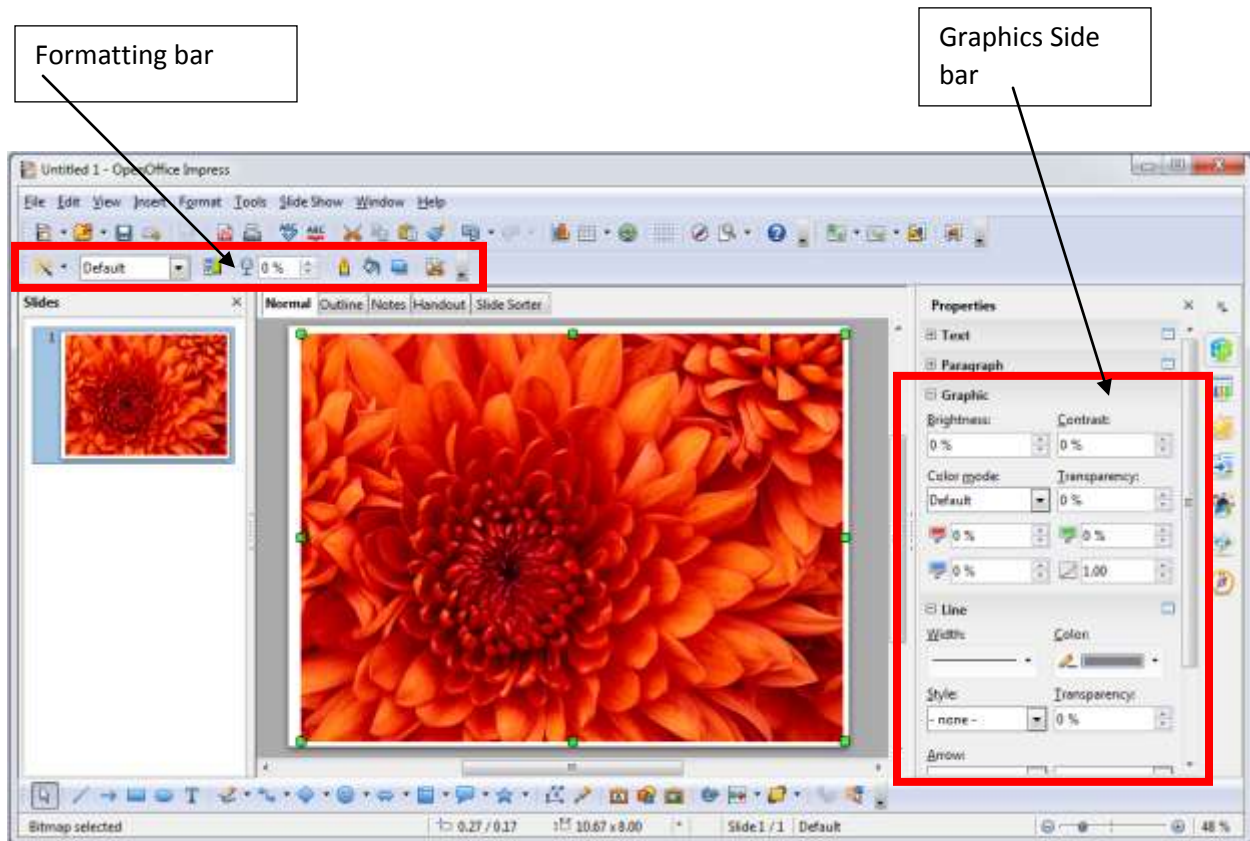


Fig. 29 Picture toolbar

USING FONTWORK GALLERY

In OpenOffice Impress, **Fontwork Gallery** is used to apply special effects to the text.

The steps to use the **Fontwork Gallery** are:

1. Click the **Fontwork Gallery** button on the **Drawing** bar. (Fig 30)
2. The **Fontwork Gallery** dialog box appears (Fig. 31).
3. Select a Fontwork style and click **OK**.
4. The selected Fontwork design will appear on the slide (Fig. 32).
5. Double-click the Fontwork design. The default text, i.e., Fontwork will appear in editing mode (Fig. 33).

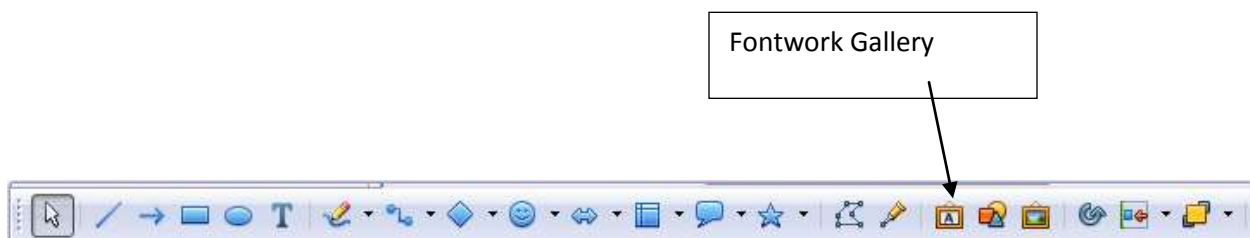


Fig. 30 Drawing bar

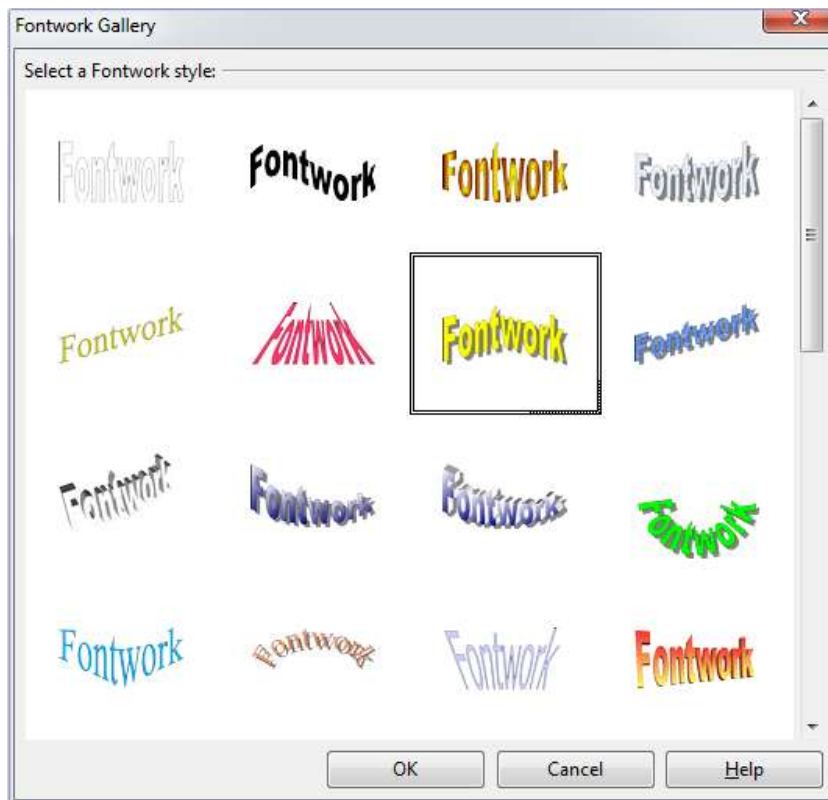


Fig. 31 Fontwork Gallery dialog box



Fig. 32 Fontwork design on the slide



Fig. 33 Editing Fontwork text

6. Change the text and then click anywhere in the document. (**Fig 34**)
7. Using the **Fontwork** bar (**Fig. 35**), you can change the style of the text, letter height, etc.



Fig 34 text on the Slide

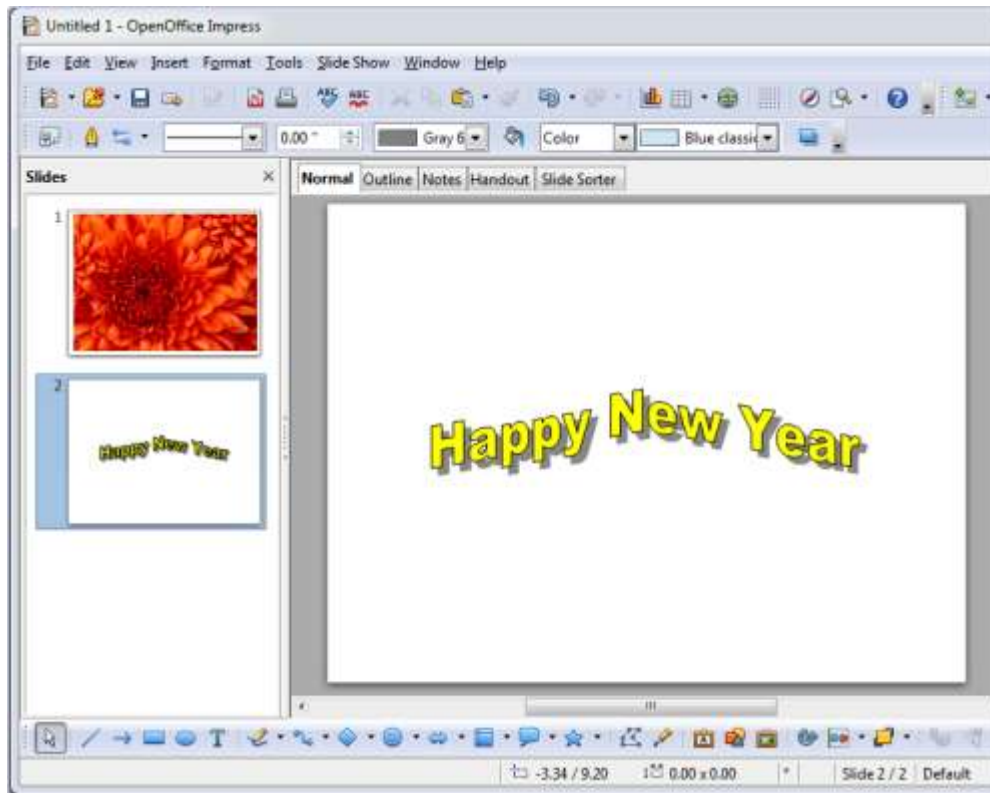


Fig. 35 Fontwork bar

INSERTING SHAPES

You can insert basic pre-defined shapes a slide. The steps to add the shapes are:

1. Click the arrow next to the **Symbol Shapes** option (**Fig. 36**) on the **Drawing** bar.
2. Select the desired shape.
3. Click and drag on the slide to draw the shape.
4. Similarly, you can use the options available on the **Drawing** bar to draw many other shapes, arrows, callouts, etc. (**Fig 37**)

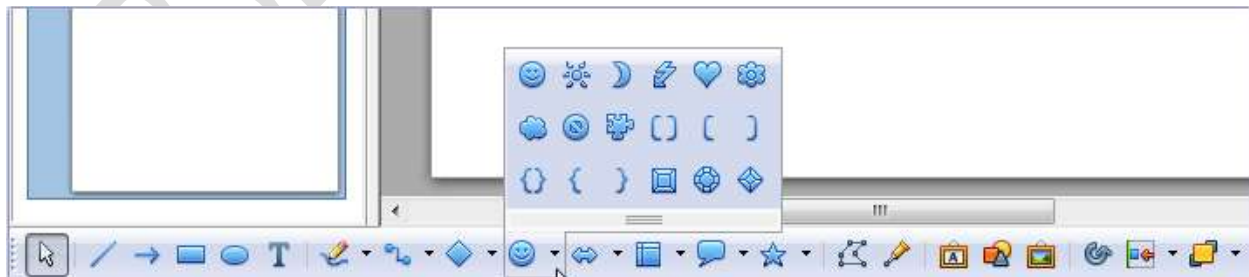


Fig 36 Symbols option on Drawing bar

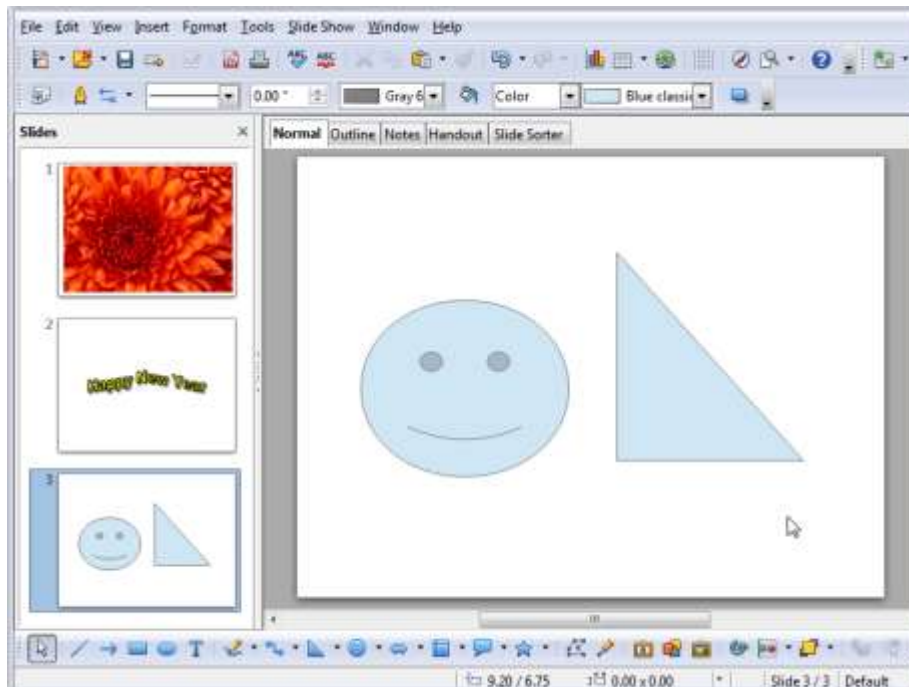


Fig 37 Shapes drawn on a slide

Editing Shapes

The inserted shapes can be edited using the **Line and Filling** bar. This bar appears when you select a shape. The various options of the toolbar are shown in **Figure 38**.

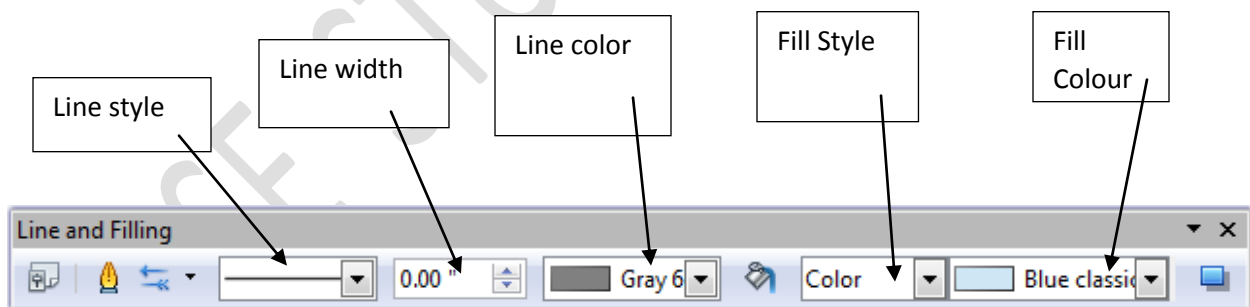


Fig. 38 Line and Filling bar

Lets Try It

1. Create a new presentation of 4-5 slides on the topic 'Activities in My School'.

- a. Use Fontwork gallery to write the headings.
 - b. Choose suitable font, size and color for the text.
 - c. Apply suitable background to the slides.
 - d. Insert suitable pictures in each slide.
2. Create a new blank presentation for children of Primary level to teach them about different shapes.
 - a. Use FontWork to write the headings.
 - b. Choose suitable font, font style, size and color for the text.
 - c. Apply suitable background to the slides.
 - d. Insert different shapes from the Drawing bar.
 - e. Edit these shapes to change their fill and line styles and color.
 - f. View the presentation in the following views
 - i. Normal view
 - ii. Slide Sorter view
 - g. Change the order of slides in the Slide Sorter view.

Worksheet

1. How can you perform the following actions in Slide Sorter view?
 - a. Select consecutive multiple slides
 - b. Select non-consecutive multiple slides
 - c. Delete slides
2. Name the view used to see all the slides in a miniature form.
3. Name the bar that has option to insert basic shapes.
4. Name the two ways in which you can insert pictures in a slide.

Session 3

INSERTING SOUND OR MOVIES

You can add sound and video files in a presentation created in Impress. The steps are:

1. Select the slide.
2. Select **Movie and Sound option** from the **Insert menu**. (Fig 39)
3. The **Insert Movie and Sound** dialog box will appear (Fig. 40).
4. Select the desired sound/movie file and click **Open**.

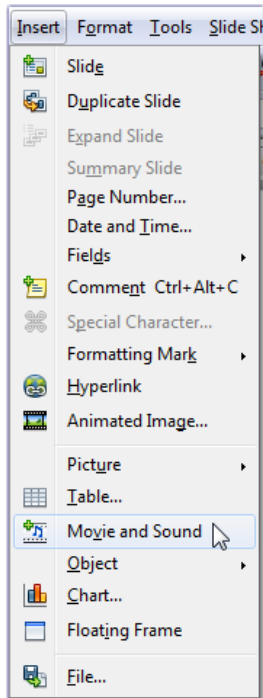


Fig 39 Movie and Sound option of Insert menu

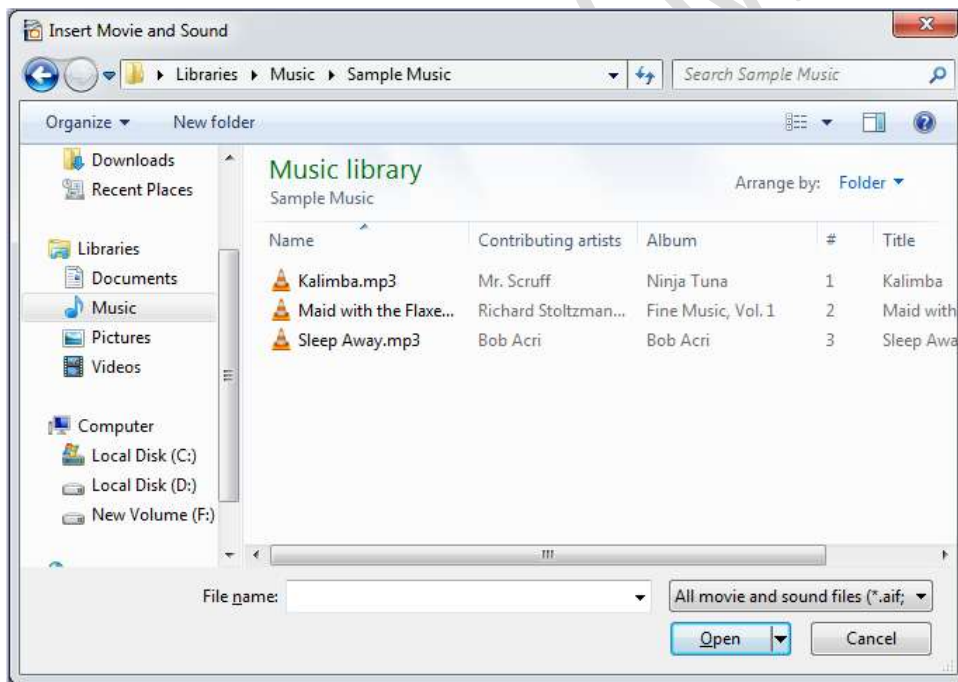
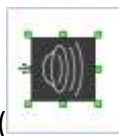
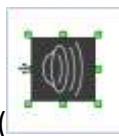


Fig. 40 Insert Movie and Sound dialog box



3. If you insert a sound file, the sound () icon appears on the slide.
4. If you insert a movie file, the movie appears on the slide.

SLIDE TRANSITION

The steps to apply transition effects to a slide are:

1. Select the slide.
2. Select **Slide Transition** option from the **Slide Show** menu. (Fig 41)

Or

Click the **Slide Transition** tab in the **Task** pane.

3. The **Slide Transition** panel will appear in the **Task** pane (42).
4. The steps to apply transition are:
 - a. Select a slide transition effect
 - b. Select the speed of transition
 - c. Select sound
 - d. Select a method to move to the next slide.
 - e. Select **Automatic Preview** to see the preview of the current slide.
 - f. Click **Apply to all slides** to apply transition to all slides

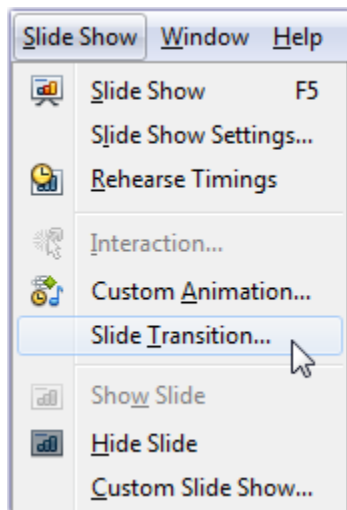


Fig 41 Slide Show menu

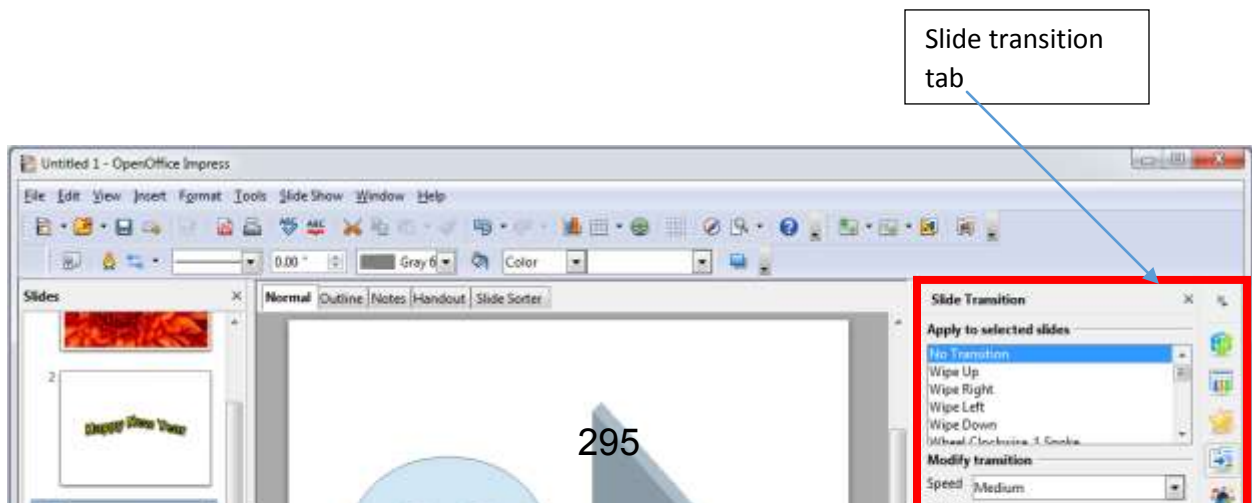


Fig 42 Slide transition tab

CUSTOM ANIMATION EFFECTS

The steps to apply custom animation effects to an object are:

1. Select the slide.
2. Select the object to which you want to apply custom animation.
3. Select **Custom Animation** option from **Slide Show** menu (**Fig 41**).
4. The **Custom Animation** panel appears in the **Task** pane (**Fig. 43**).

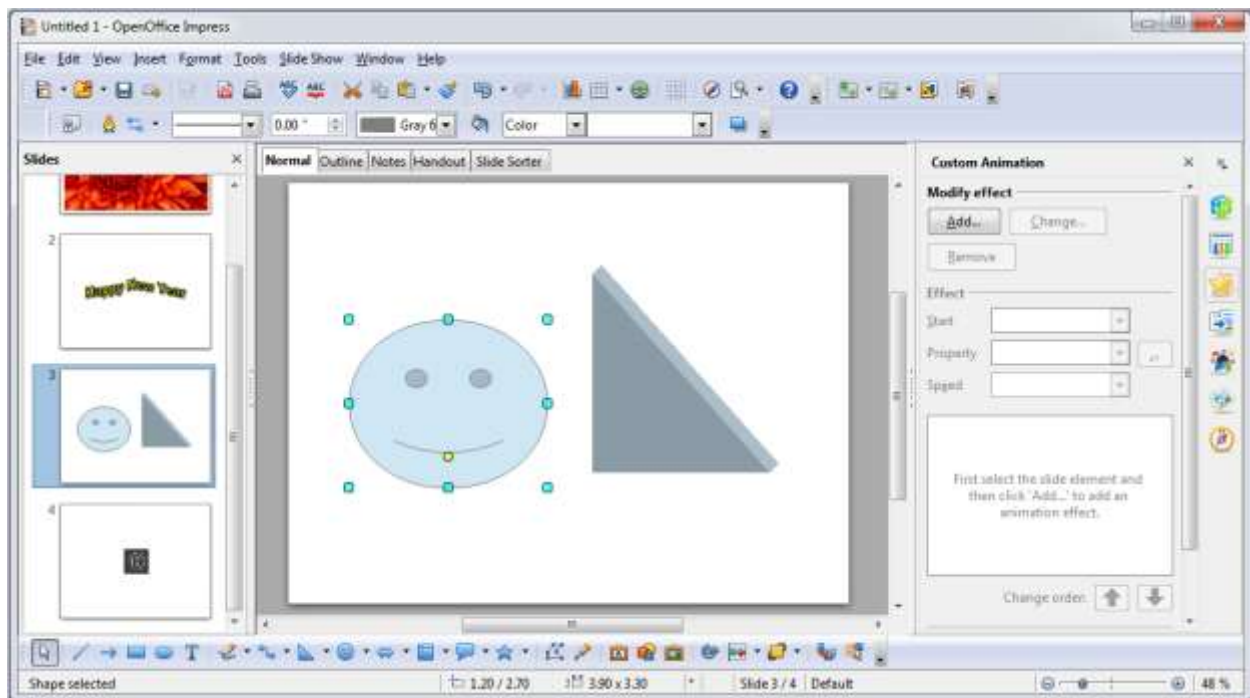


Fig. 43 Custom Animation panel

3. Click the **Add** button under **Modify effect**.

4. The **Custom Animation** dialog box appears with the **Entrance** tab selected (**Fig. 44**). Choose the desired effect and adjust the speed.

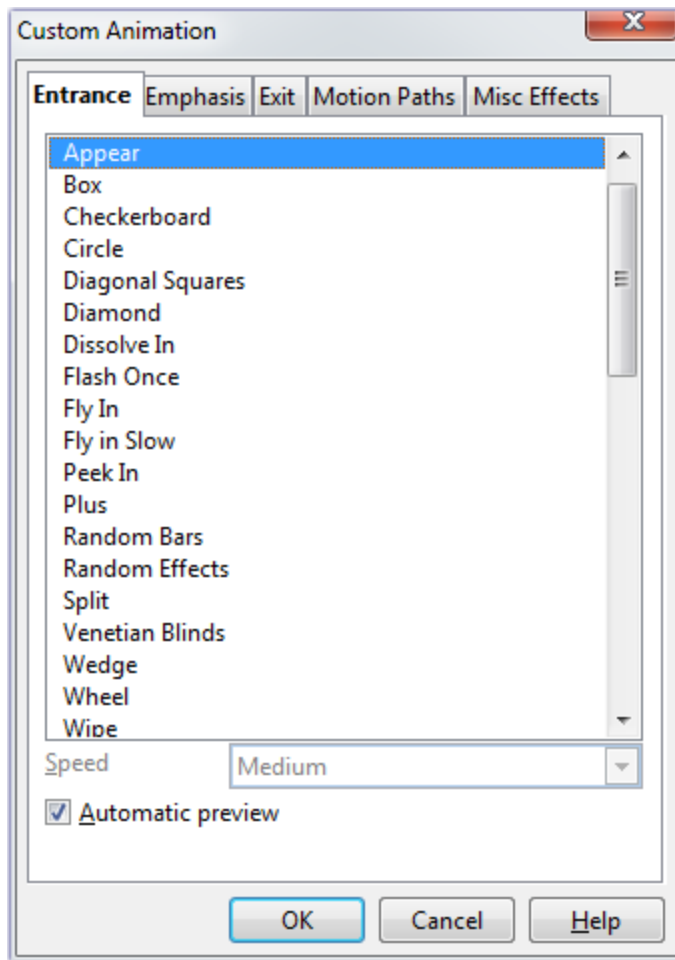


Fig 44 Custom Animation dialog box

The other tabs of this dialog box and their options are as follows:

Emphasis tab This tab allows you to highlight the object on the slide.

Exit The options under this tab allow you to select how the object will leave the slide.

Motion Paths This tab helps you to select the motion path that the object will follow on the slide.

Misc Effects This tab has the commands to control a media file, i.e., an audio or a video file. You can select options for starting, pausing, or stopping the video or sound file.

5. Click **OK**.

6. Repeat the above steps for other objects on the slides.

Changing the Order of Animation

The steps to change the order of animations are as follows:

1. In the **Custom Animation** panel, select the animation whose order you want to change.

2. Use the **Change Order** buttons  to move the animation up or down.

Removing Animation Effects

The steps to remove an animation are as follows:

1. In the **Custom Animation** panel, click the animation effect you want to remove.
2. Click the **Remove** button

SLIDE SHOW

The **Slide Show** view is used to display a presentation slide-by-slide in full screen mode.

You can run a slide show in any one of the following ways:

- Press **F5**.
- Click the **Slide Show** button on the **Standard** bar.
- Click the **View** button and then click **Slide Show** in the drop-down menu.
- Click the **Slide Show** button and then click **Slide Show** in the drop-down menu.

During a slide show, you can move to the next slide in the following ways:

- Click the mouse button.

Or

- Press **ENTER** or the spacebar.

PRINTING A PRESENTATION

The steps to print a presentation are as follows:

1. Select **Print** option from the **File** menu (**Fig 45**).
2. The **Print** dialog box appears. (**Fig 46**)
 - a. Select a printer.
 - b. Select number of copies to be printed.
 - c. Select the slides to be printed.
 - d. Click the **Print** button.

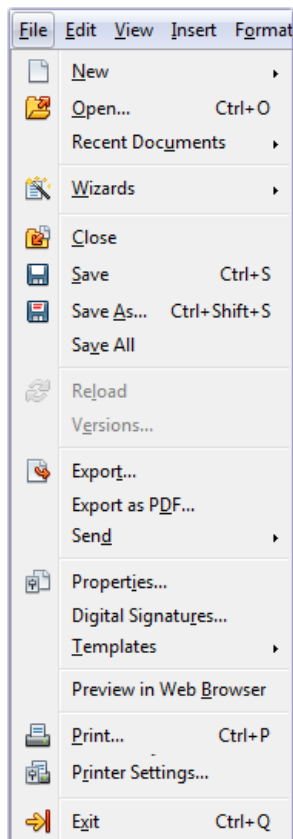


Fig 45 File menu

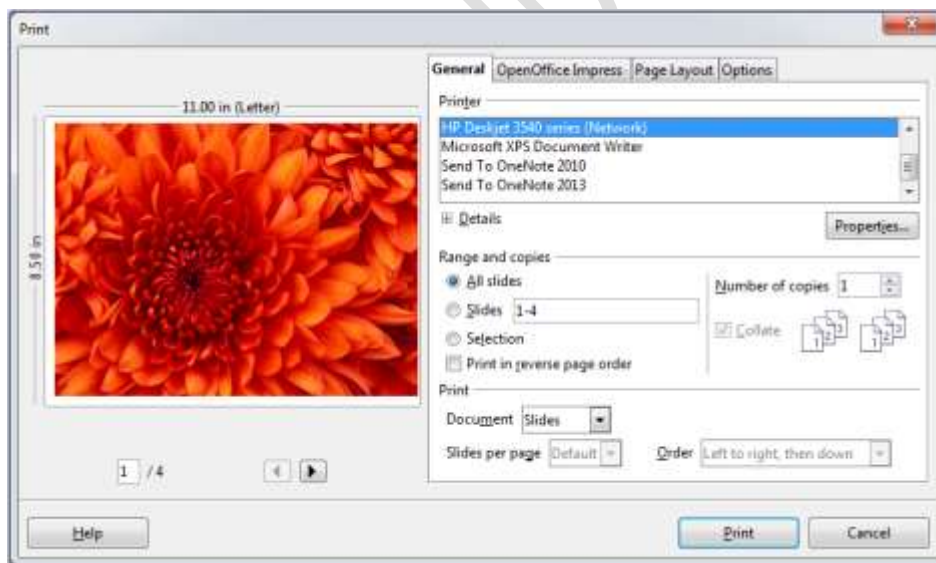


Fig. 46 Print dialog box

Lets Try IT

1. Create a presentation of 7-8 slides on the topic 'Natural Resources'
 - a. Choose suitable font, size and color for the text.
 - b. Write headings using FontWork.
 - c. Insert suitable pictures in each slide
 - d. Insert a video related to the topic in the last slide.
 - e. Apply custom animation to the objects on the slide.
 - f. Apply Slide transition to the slides.
 - g. Print the handouts of the slides.

Worksheet

1. Custom animation is applied to the _____.
2. Slide transition is applied to the _____.
3. How can you insert an audio in a slide?

4. Name the menu and the option used to print slides of a presentation.

5. Mention any two ways to run a slide show.

Self Management

11 Sessions (7 Theory and 4 Let's Do It)

"Ekalavya, An Ideal For Modern Students, Learnt Archery Without Any External Help.

By Self-Effort And Faith In One's Power, Longing For Knowledge And By Self-Reliance,

One Can Do Miracles.."

Swami Vivekananda

Self-motivation

Motivation is defined as the drive required to engage in goal-oriented behavior. Motivation is inner urge to do something and self-motivation is ability to do what needs to be done without the influence or thrust from other people or situations. Self-motivated individuals are asset to the world, their country, their families and to themselves. Self-motivated individuals practice righteousness, means what needs to be accomplished, shall be done. Self-motivated people have elevated spirit and full of positivity. For them nothing is impossible. They are focused on their goals and objectives and diligently achieve their aims.

Self-motivation is important because

- It increases individual's energy and activity.
- It directs an individual towards specific goals.
- It results in initiation and persistence of specific activities, thus keeps him/her active.
- It affects cognitive processes and learning strategies used by individual for completing similar tasks.

Finding and listing motives

Motivation is classified in different types by different authors such as motivation based on physiological and psychological needs. Physiological motivation is based on the physical needs to satisfy hunger or thirst. Physiological motivation directs the behavior towards satisfying

specific bodily need. Psychological motivations can be guided by need for achievement and need for affiliation. The need for achievement is a social form of motivation involving a competitive drive to meet the standards of excellence. The need for affiliation involves the need to seek and enjoy close and cooperative relationships with others and to adhere and be loyal to a friend. Motivation is also classified as internal or external motivation. In case of internal motivation, an individual demonstrates a desire to do his/her work without any external reward. External motivation occurs when we feel driven by outside forces, performing an activity either to obtain a reward or to avoid punishment. For example, a student who is internally motivated will learn, complete assignments on his/her own, whereas a student who is externally driven will be completing lessons to avoid punishment or to gain reward. Motivation, basically answers “why”, the reason behind doing a task. A person, may be internally or externally motivated as a person, in different situations or may be driven by physiological and psychological needs. One should identify the motivation in every occasion to handle oneself better.

Finding sources of motivation and inspiration

Following are the sources of motivation and inspiration.

- **Music :**
Music is the language of the soul. A good inspiring piece touches everybody's heart and can help create miracles.
- **Books :**
Books are said to be best friends. They expand our horizon of thinking. They help us visualize the unknown and uncharted territories beyond our capacities. Books about heroic acts, inspiring lives and stimulating creativity help readers move beyond their routine lives.
- **Activities :**
Engaging in positive and skill enhancing activities keeps our spirits high. Competitions, games, simulations, interviews for various committee positions are found to encourage, motivate and inspire students.
- **Expansive thoughts:**
Thinking and discussing big and positive ideas motivates us to reach to our highest potential.
- **Living in the present :**
Being present where we are rather than where we are not bring in peace and calmness in our life. A calm and peaceful mind can help us achieve wonders. This quality of being aware and conscious of one's self in present moment is also called mindfulness. Mindfulness helps students to pay attention, reduce stress and helps promote thoughtful approach towards life.
- **Dreaming big :**
Dreaming big is a journey not a destination. Dreaming big helps us to be mentally prepared to take that big leap forward. Only when we aim high, we will be motivated to work hard and achieve big things in life.

Personality types, traits and disorders

Meaning of personality

Personality is relatively enduring set of traits. These traits are made up of be emotional, behavioral and mental set of characteristics. Heredity has been found to be determining personality apart from environmental forces. Personality is shaped through family, culture, society, education and other environmental factors.

Influence of personality

Personality affects all aspects of an individual's performance, even how he/she reacts to situations in life. Individuals shall set clear goals for themselves and diligently pursue them. Behavioral tendencies like anxiety, stress, perseverance and conscientiousness reflected in personality traits can influence academic performance.

Basic personality traits

According to trait theory, combining a set of observable traits into a group forms an individual's personality. One popular personality classification is big five. The Big Five, are global traits associated with work.

- Extraversion : Gregarious, assertive and sociable.(Opposite reserved, timid, quiet.)
- Agreeableness : Cooperative, warm and agreeable.(Opposite cold, disagreeable and antagonistic)
- Conscientiousness : Hardworking, organized and dependable(lazy, disorganized and unreliable)
- Emotional stability : Calm, self-confident and cool(insecure, anxious and depressed)
- Openness to experience : Creative, curious and cultured(narrow interests)

Common personality disorders

Following are the common personality disorders. If anyone is identified with these disorders, counselling shall be provided by family members, teachers and counsellors.

Paranoid

Feeling extremely nervous and worried because you believe that other people do not like you or are trying to harm you.

Antisocial

Is characterized by a pattern of persistent disregard for and violation of the rights of others.

Schizoid

Is characterized by a lack of interest in social relationships and people tend to be distant, detached and indifferent.

Borderline

Is marked by an ongoing pattern of varying moods, self-image and behavior. These symptoms result in impulsive actions and problems in relationships.

Narcissistic

Is a condition in which people have an inflated sense of their own importance, a deep need for excessive attention and admiration and lack of empathy for others.

Avoidant

Avoidant personality disorder is characterized by feelings of extreme social inhibition, inadequacy, and sensitivity to negative criticism and rejection.

Dependent

Dependent personality disorder is a condition marked by an overreliance on other people to meet one's emotional and physical needs.

Obsessive

Obsessive-compulsive personality disorder (OCPD) is a personality disorder that's characterized by extreme perfectionism, order, and neatness.

Hands On Exercises to Understand the Concept Better

4 Sessions

Session A. Group Discussion on identifying needs and desire

Session B. Discussion on sources of motivation and inspiration

Session C. Demonstrate the knowledge of different personality types

Session D. Essay on reflection on the self-personality type

Entrepreneurial Skills

Introduction

All entrepreneurs are different but there are some characteristics and qualities that have been observed to be common among successful entrepreneurs over the years. Along with the qualities and traits, the motivation to choose the path of entrepreneurship as well as the journey to success is also different for each entrepreneur. However, one thing that drives all entrepreneurs is the sense of purpose behind their venture as well as willingness to take the leap and implement their ideas. More than anything, most entrepreneurs follow a basic process of entrepreneurship to kick start their ventures.

Entrepreneurial Competencies

Entrepreneurial behavior requires certain knowledge, skills or personality profile. Generally, it is called entrepreneurial competence or traits. A competence may be defined as underlying characteristics of a person which results in effective and/or superior performance in a job. Entrepreneurial competencies play a key role in the success of an entrepreneur and in achievement of entrepreneurial goals.

Common Entrepreneurial Competencies

In a study conducted by David C. McClelland, a reputed behavioural scientist, and Entrepreneurship Development Institute of India (EDII), certain competencies were identified that were found in successful entrepreneurs who exhibited superior performance. These competencies can be developed through training, experience and guidance in a budding entrepreneur. Some of these competencies include:

- 1. Initiative:** It is an inner urge in an individual to do or initiate something. It is the entrepreneur who takes the first move towards setting up of an enterprise. Most innovative entrepreneurs have this urge to do something different. An entrepreneur basically is an innovator who carries out new combinations to initiate and accelerate the process of economic development.
- 2. Seeking Opportunity:** An entrepreneur is always on the look-out or searching for opportunity and is ready to exploit it in the best interests of the enterprise.
- 3. Persistence:** An entrepreneur is never disheartened by failures and keeps trying, adapting and iterating to overcome obstacles that come in the way of achieving goals.
- 4. Information Seeking:** A successful entrepreneur always keeps his/her eyes and ears open and is receptive to new ideas which can help in realizing his goals. He/she is always open to consult with experts and mentors to get the right guidance and advice.
- 5. Concern for High Quality:** Successful entrepreneurs are seen to be not satisfied with moderate or average performance. They set high quality standards for themselves and then put in their best for achieving these standards. They believe in excellence, which is reflected in everything they do.

6. Commitment: Entrepreneurs exhibit high level of commitment towards their work and decisions. For an entrepreneur to succeed, they have to stay committed to their venture and their goal.

7. Concern for Efficiency: Many entrepreneurs are always keen to devise new methods aimed at promoting efficiency. They try and create new methods that aim at making working easier, simpler, better, and economical.

8. Systematic Planning: Successful entrepreneurs decide future course of action keeping in mind the goals to be achieved. They believe in developing relevant and realistic plans and ensure proper execution of the same in pursuit of running a successful enterprise.

9. Problem Solving: An entrepreneur takes each problem as a challenge and put in best for finding out the most appropriate solution for the same. He/she will first of all understand the problem and then evolve appropriate strategy dealing with the same.

10. Self-confidence: Entrepreneurs are not cowed down by difficulties as they believe in their own abilities and strengths. They have full faith in their knowledge, skill and competence and have the confidence to handle future uncertainties.

11. Assertiveness: An assertive person knows what to say, when to say, how to say and whom to say. Entrepreneurs exhibit assertiveness in situations around decision making to ensure that interests of the organization are aligned with decisions and actions of the entrepreneur and its team.

12. Persuasiveness: Entrepreneurs have to persuade different cohorts of people at different stages, such as employees, customers, clients, suppliers etc. Through sound opinions and logical reasoning, an entrepreneur manages to convince others about what he/she wants.

13. Effective Strategist: A successful entrepreneur possesses the ability to formulate relevant strategies, aimed at safeguarding or promoting the organization's interests and goals. Strategy may be with respect to facing future uncertainties or challenges posed by competitors etc.

14. Effective Monitoring: Entrepreneurs monitor that everything is carried out in their organizations as per their decisions but at the same time give some flexibility to the employees. They ensure regular monitoring of the working so that the goals of the organization are achieved in best possible manner.

15. Concern for Employees Welfare: Future of the organisation depends on its employees. If the employees are dedicated, committed and loyal, the organisation is bound to perform well. A successful entrepreneur tries to promote organisation's interest through promotion of interests of the workers. He/she takes personal interest in solving problems confronting workers and generates the feeling that there is interdependence of the interest of workers and the management.

Benefits of Entrepreneurial Competencies

- Taking actions to implement your ideas.
- Understanding the need or the problem your offering is fulfilling or solving.

- Strategizing and planning the steps that need to be taken.
- Preparing an action plan and timeline.
- Networking with stakeholders.
- Interacting with customers.
- Gaining and analyzing insights.
- Looking for alternatives and adjusting plans according to analysis and feedback.
- Evaluating and calculating the risk involved.
- Building and motivating a team.
- Being patient and staying motivated to overcome and work around various obstacles.
- Showing the value that the business is creating for stakeholders and customers.
- Gaining the know-how of creating, building, launching, sustaining, managing and growing a business.

Activity I

Self-reflect and check if you relate to the statements given below:

I like to give myself challenges when I take on a new project.

Where others see problems, I see possibilities.

I do not worry about what others will think before doing something important.

I am fairly curious and I am continually in search of discovery.

I want to build something that will be recognized publicly.

When I take on a project I have confidence that I will carry it out successfully.

I feel that am capable of seeing many solutions to a problem.

I always try to learn lessons from my failures.

I am not afraid to take on initiatives.

I manage my stress well in ambiguous and uncertain situations.

After some self-reflection, consider the competencies of entrepreneurs given above. Self-evaluate yourself on these competencies by giving a rank number to each.

For example:

Self-confidence – 1

Commitment – 4

Problem Solving – 6

According to the above ranking, one thinks that self-confidence is their strongest competency. Commitment comes at the 4th rank and problem solving at the 6th. Thus, problem solving as a competency is weaker than commitment for the person in the example given above.

Activity II

Let us look at the example of Byju Raveendran, who started the famous education platform, Byju's. He took some action steps that helped him develop these competencies and make Byju's a successful startup.

Example:

Byju's learned English, Math and science on his own during his school years. Especially, he learnt English by listening to commentaries. With this, he realized how for many students in the Indian education system, learning is involved rote learning and then reproducing the learnt information in the exams, with bare minimum application. With Byju's, he successfully tackled the root of the problem of learning.

Which competency did he develop?

Ans. Problem Solving

Please write the competencies, among the competencies given below, that you think match with the action step taken by Byju Raveendran in the section below.

When Byju's started, it was in the offline format. With classrooms with a large capacity, interaction was limited and rather not really possible. Thus, Byju Raveendran started to think of ways to solve this problem, by predicting what kind of doubts a student could have and visualized and conceptualized the teaching material beforehand.

In 2003, Byju's helped a few friends study for the CAT exam, which is the common entrance exam for Indian business and management schools. With his tutoring, his friends did well in the exam, after which he wrote the exam and ended up scoring in the 100th percentile. However, he returned to his job in the UK, but came back to India two years later, and helped some more people with the CAT exam. By this stage, he got immense positive feedback and had coached enough number of people who got good results. This made Raveendran realize that he actually felt passionate about teaching. He quit his IT job in the UK, took to an entrepreneurial path and stayed committed to it.

Teaching for entrance exams such as CAT, Raveendran realised that the problem was much deep rooted. The insight he gained was that students were not learning basics and fundamentals at the school level, and this led to Byju's expand into subject-wise coaching for classes 6th to 12th.

Raveendran started by conducting workshops on the weekend. Once he got to a stage when one classroom wasn't enough to accommodate students, he booked an auditorium with a seating capacity of 1,200. From a classroom of 40, he was confident enough to the leap of going 30x but did not worry about whether it would fill in. It was only by the sixth or seventh week the auditorium was full.

Once Byju's started targeting 6th to 12th standards, they had to reach out to students directly. Not just by engaging children, but even by convincing parents that an app is suitable for real-world coaching, Byju's started to make some progress. Raveendran had to influence all stakeholders of education such as students, parents, tutors, educators and schools to communicate his vision and make them trust the product.

Interacting with some of the brightest students and taking feedback on Byju's courses, Raveendran realised that most of them, unfortunately, studied only because of the fear of exams. They are taught to solve a problem but aren't enabled to find a problem. He realised that if his strategy of self-learning was adopted in early years at school, it could potentially create a huge impact.

Byju believes that it is important to execute things in a business, keeping the pace faster than slower. In the initial stages, there is a need of a strong idea and a team. Byju's made a dynamic and detailed business plan in the initial stages, in order to avoid making any huge mistakes. At the same time, he was flexible to making quick or midway changes, throughout the plan. However, he thinks it is best to try out multiple things and keep making changes, but some clarity should be there about the core idea.

Raveendran started his education career as a teacher tutoring for CAT. The initial workshops were free and students paid for advanced workshops once they liked it. From there, once his classes started being recognized as "Byju's classes", he thought of turning it into a venture. With great perseverance, he overcame challenges, especially in entering the school space. In this highly regulated system, marketing to students was difficult, but he kept moving forward taking one step at a time.

Initially, Raveendran didn't have any drive or passion to start a business, but when he started teaching, he realised that it was his passion and it gave him a lot of satisfaction and enjoyment. When his classes started creating an impact, he turned it into a business proposition and launched Think and Learn, the parents company of Byju's.

As a teacher turned entrepreneur, Raveendran not only has to create and deliver good courses, but also build and manage the team, strategize marketing campaigns, ensure quality, get continuous funding and scale the company.

Entrepreneurial Competency - Taking Initiative

Every person has certain dreams and ambitions in their life. To achieve them, it is important to try and work towards them. The beginning of trying something and working towards it is basically taking initiative. Initiative is defined as the ability or opportunity to assess, act or take charge on something. We can take the initiative to do something in different ways.

In the classroom, initiative can be taken by offering to assist the teacher in setting up the blackboard or presentation, writing comments on the board, contributing and presenting a new perspective to a class discussion etc. Initiative can also be taken outside the classroom, by getting involved in extracurricular activities, trying out a new activity, doing a project yourself etc.

When working in groups, initiative can be taken by taking on the challenging portion of a project, or offering to take the lead on the project and delegating tasks to others, or ensuring that certain timelines are followed for the project etc. Sometimes, part of taking initiative can also include noticing emerging issues, either in the organization of the project, or in the functioning of the team itself and attempting to remedy the situation; this also demonstrates problem solving and adaptability.

Entrepreneurship involves the willingness to take risks, be innovative, lead, develop, organize and manage a business venture. Entrepreneurship occurs when the initiative is taken towards to a project to turn it into a business venture. Thus, a sense of initiative and entrepreneurship refers to an individual's ability to turn ideas into action.

For someone to work towards building this competency, they have to start taking small initiatives within their existing environments. For example, if you join a club or group and have an idea for an activity, event or campaign, start it. If you have an idea but do not know what to do with it, start talking and discussing with people. If you want to try a new hobby outside your comfort zone such as playing an instrument, painting, dancing etc., go ahead and try it. If you want to solve a problem in your community, find a way and do it.

Taking initiative helps in:

- Becoming aware of one's own environment and community.
- Being able to identify and seize opportunities.

- ### Activity III

- Think about a time you went above and beyond what was expected of you.
- Think about a situation when you were creative. What did you do?
- Can you remember a situation when you took responsibility for something and had negative consequences? What did you learn from it?
- Have you ever noticed and raised issues in a project/activity/discussion?
- Think about a time when you worked on a group project and made improvisations in it.

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

[illegible]

For example, Mark Zuckerberg, the founder of Facebook, realized that he had to protect his business from being swallowed by investors. He knew he had to have money to bankroll his business. He sought advice of Peter Thiel and Peter also invested in his business. He also sought the advice of former Netscape CFO Peter Currie about financing strategies for Facebook. After the death of Steve Jobs, he accepted an interview said that Steve Jobs had advised him on how to create a management team at Facebook that was "focused on building as high quality and good things as you are". Thus, no matter how successful or how sharp an entrepreneur is, he/she still needs to seek for information to improve their business.

Activity V

Read the situations below and write answers to the questions given below:

- Who should the entrepreneur seek information from?
- What information should the entrepreneur acquire?

Simaya has started a company which makes bags and wallets using fish leather. Fish leather is made by using the waste material from the fishing industry. Simaya is trying to understand who her customers are. She is not sure if she should start selling the products online or supply to offline stores or do both. She does not know what will be the touch points where people could buy the products she is planning to design. She wonders what preferences and choices people would have.

Dhruv has started a brand that customizes kid's shoes. While he has made sales on some online websites selling kids products, he is unable to make a sustainable profit. He is also looking for ways to raise some capital to start selling from his own website and retail store.

Janvi is thinking about starting a business that conducts training workshops for working professionals. She plans to teach business-related topics and develop employability skills through the workshops. However, Janvi does not know what kind of competition will be there. She wonders if she will be able to get enough customers to beat the competition in such a crowded space.

Goal Setting

Goal setting refers to establishing short or long-term objectives, usually along with incorporating deadlines and quantifiable measures to indicate if they have been achieved. For a business, the ultimate goal is to make profit. For a social enterprise, the ultimate goal might be to sustain itself and create the impact that it aims to. Entrepreneurs set various goals with different timelines. Each action and decision is taken to achieve a certain goal.

Goal setting ensures clarity of vision and mission, alignment of goals across the organization and making of purpose-driven objectives. It is important as it increases the probability of achievement of goals and encourages quality performance. It allows employees to be more proactive and structured.

In our everyday lives, we set different goals. Many students set goals about performing better in examinations. Some people set a goal to manage their weight and stay fit. Some set goals around learning a new activity or managing their existing resources etc. Similarly, in business goals are set around specific tasks and projects. For example, in marketing, the goal of what a campaign intends to achieve is laid out. In operations, some goals include managing costs and increasing efficiency. In finance, the goal might be to using the capital resources in an optimum manner for the right business activities.

SMART Goals

S.M.A.R.T. is an acronym for the 5 steps of specific, measurable, attainable, realistic, and timely goals. It's a simple tool used by businesses to go beyond the realm of fuzzy goal-setting into an actionable plan for results.

Specific: Great goals are well-defined and focused. The moment one focuses on a goal, the goal becomes a magnet, pulling resources towards it. The more focused one's energies, the more power one generates.

Measurable: A goal without a measurable outcome is like a sports competition without a scoreboard or scorekeeper. Numbers are an essential part of business. Concrete numbers should be put in the goals to know if one is on track.

Attainable: A goal must be achievable. Far too often, small businesses can set goals beyond reach. No one has ever built a multi-crore business overnight. Venture capitalists and angel investors discard countless business plans of companies with outlandish goals.

Realistic: Achievable business goals are based on the current conditions and realities of the business climate. One may desire to have the best year in business or increase revenue by 50%, but if a recession is looming and three new competitors open in the market, then the goals are not as per the realities of the market.

Timely: Business goals and objectives just don't get done when there's no time frame tied to the goal-setting process. Every plan or project must follow a timeline. Whether the business

goal is to increase revenue by 20% or find 5 new clients, a time-frame or deadline to accomplish the goal must be set.

SMART goals help bring clarity to a broad goal and most importantly, track the progress of a specific task. This technique for goal setting can also be very useful when thinking about one's career and ambition. For example, if you set 'I want to start a business' as your goal, it is very broad in nature. Let's look at an example to make it SMART.

- Specific: To start a business, my idea is to make and sell handmade cards on Etsy.com
- Measurable: My target is to sell at least five cards in a week's time.
- Attainable: I will follow a step by step process to run the business, starting with setting up a store on Etsy, building an inventory of 30 cards and lastly promoting through referrals, word-of-mouth, local networking and building customer relationships.
- Realistic: I will be able to start a business and earn some money from my passion. I will use my current savings.
- Timely: My timeline is to start selling on Etsy within four weeks, with my target inventory ready in six weeks.

SMART Goal:

I am going to set up a store on Etsy.com that will sell handmade cards. Within four weeks, I will be able to get some financial benefit from my hobby. My target is to sell at least five cards per week, which should be achievable given that I will promote my business through local networking, word of mouth, referrals and by building good customer relationships. My inventory of 30 handmade cards has to be ready within six weeks, to help me achieve my target.

Activity VI

Let us do small exercises to understand SMART goals better.

Specific:

Look at the examples below. Underline the goals that are specific.

Get in shape.

I will go to the recreational centre Monday, Wednesday, and Friday at 6:00 a.m. and walk around the track for 30 minutes.

Get good grades.

I will sit at the table every day at 3:30 p.m. and work on assignments given that day in school until 4:30. Upon completion, I will place the assignments in the correct folder, take to school and turn in before class starts.

Get rich.

I will save 25% of my paycheck every month and invest in mutual funds until I am 55 years old.

Measurable:

The above examples give good indications. Write in the measurable outcomes from the above examples of #2, #4, #6.

#2. _____
 #4. _____
 #6. _____

Attainable:

Which of these goals seem attainable?

Earn 10 times the money I make compared to this month.

Exercise daily for one hour.

Eat an apple a day.

Watch television for all night but wake up early every morning.

Live in Antarctica for a year, after I have lived in Mumbai all my life.

Realistic:

If I wanted to run a marathon and I haven't done any training, which goal would better represent my reality?

I will walk every day for 30 minutes for one week, jog for 30 minutes for two weeks, add five minutes to my work out every week until I reach 60 minutes and continue training for three months.

I will run the marathon on Saturday.

Timely:

Give yourself a deadline. When you have an end date, you will finish your goal. Look at the above examples (all of them). Write the goals that have a time frame.

Activity VII

Write an academic or personal goal below in the SMART manner:

S — My SPECIFIC Goal

M — How will I MEASURE my progress?

A — What ACTIONS must I take to accomplish this goal?

R – Is my goal **REALISTIC** and attainable? ____ Yes ____ No

T – Is my goal **TIMELY**? When will this goal be accomplished?

Decision Making

One of the most important traits of being an entrepreneur is being able to take decisions that more often than not, decide the fate of the company. At the helm of the company, entrepreneurs often have to take that one decision at the right time which can define the future of their company. And then they also have to quickly act upon their decisions.

Some decisions are more influential on the overall business processes, but some of them are small decisions without significant effect on the business as a whole.

Process of Decision Making

Recognize the problem or the gap: First things, first. Every decision-making process starts with the problem or some discrepancy that exist between the desired and current state. There is a desired state and an existing state. The difference between these two is the gap or problem that one must solve through the decision-making process.

Analyze the problem: After one finds possible problems that require solutions, one can start with the analysis of defined problems. At the end of this step, one will need to have a list of possible problems sorted by their urgency for the solution.

Define and analyze possible solutions: One needs to start brainstorming all possible solutions for a given problem. When one thinks about solutions, it is also important to think about the causes of the problems. After thinking of all possible ideas and solutions, they must be ranked and analysed to assess which one can serve as the best possible solution.

Select the best solution: The final result from the decision-making process is a selection of the best possible solution to the problem. The solution that one will implement for the given problem is basically the decision that one makes.

Implement the decision: One will need to implement the decision or solution and check the results to see if the specific solution really could solve the identified problem or not.

Activity VIII

Decision Making..... The Lunar Disaster

On April 11, 1970 astronauts James Lovell, John L. Swigert, and Fred W. Haise blasted off from Cape Kennedy aboard Apollo 13. At 54 hours and 54 minutes into the mission a large explosion crippled the spacecraft. Four days the attention of the world was riveted on the disabled spacecraft. Because of quick thinking and the use of computers, mission control was able to get the crippled spacecraft safely back to Earth.

In this activity, you are a member of the crew of a spaceship scheduled to rendezvous with the mother ship, located on the lighted surface of the moon. Due to mechanical difficulties, your ship is forced to land on the dark side of the moon, 200 miles (~ 322 km) from the mother ship. During the emergency landing much of the equipment aboard was damaged and since survival depends on reaching the mother ship, only the most critical items must be chosen for the 200 mile trip. Below is a list of 15 items left undamaged by the crash. Rank each of these items in order of importance from 1 the most important to 15 the least important.

Here is some background information, which may be useful. There is no atmosphere or water on the moon, and the moon has almost no magnetic field. A FM transmitter uses straight-line communication and has a range of less than 100 miles on the Earth, so on the moon the range would be considerably less. The gravity on the moon is $1/6^{\text{th}}$ that of the Earth. The items below are in no particular order.

Item	My Ranking score)	(Individual	Group ranking (group score)
Box of matches			
Food concentrate			
Nylon rope, 50 feet			
Parachute silk			
Portable heater			
Two 0.45 caliber pistols			
Dehydrated pet milk, One case			
Two 100-Pound oxygen tanks			
Star Map-Moon Constellations			
Life raft			
Magnetic compass			
5 gallons of water			
Signal flares			
First-aid kits, injection needles			
Solar powered FM transmitter			

After ranking each item 1-15, get together with another student and re-rank the items remember 1 is the most important and 15 is the least important. With your partner(s) AGREE on a ranking (Do not change your individual score) and place the number under

group rank (each person in the group should have the same GROUP rank). After completing both individual and group ranking your teacher will give you the actual ranking determined by NASA.

To score subtract the difference between the number written with the actual number given by your teacher. Place the difference in the column labeled score (Individual and group)

After completing the scoring add up the numbers in each score column and place the total in the spaces below.

Individual score _____

Group score _____

Reflect on the decision-making process you followed.

Discuss why the scores increased or decreased after working together.

Discuss ways of thinking critically in the future.

Note: The answer key of actual ranking/score is given at the end of the chapter.

Team Building

Team building is any action or method that brings a group of individuals together and motivates them to work cooperatively as a team. It refers to the various activities undertaken to motivate the team members and increase the overall performance of the team. Teams are formed when individuals with a common interest come together on a common platform to achieve a predefined target. The main goals of team-building are to improve productivity and motivation.

The term “team building” has become a buzzword in recent years, and has many connotations. In terms of corporate development, team-building exercises are important not for the immediate experience of the activities performed by the team, but also for the group skills, communication and bonding that result. Other team building exercises include coaching, shared learning, group discussion sessions, goal setting and simply celebrating one another’s successes.

Benefits of Team Building

- Boosts morale and leadership skills
- Clearly defines objectives and goals
- Improves processes and procedures
- Improves organisational productivity
- Enables better communication
- Diminishes misunderstandings and judgments
- Urges self-awareness of one’s own and team’s strengths and weaknesses
- Cultivates problem-solving skills
- Incites creativity and innovation
- Breaks barriers within the team

Factors Influencing Team Building

An entrepreneur always looks for solutions. An entrepreneur always looks to forge ahead with his plans and his people. The first few years of being an entrepreneur, typically, are very frantic and hectic. That is where “Teams” come in. Teams are built to maximize the potential of the human resource at hand. Teams are sometimes created out of a specific need. Teams help to think of answers and provide the cheapest solutions available.

Some of the factors to consider when building teams are as follows:

Ambition: It is important that the team feels motivated to work towards the same ambition or goal. In team building, people who share the same amount of passion about the company’s mission and harness that energy to lead should be got on board. Without the burning desire to make things happen, the rate of innovation can really suffer.

Experience: By building out a team, one naturally drives a higher level of specialization and thus, needs to find people with experience and expertise within a particular domain. There is something to be said for hiring a team that has done it before. In the early stages of a business, the grittiness and get-it-done attitude is helps to reach milestones.

Alignment: The goals of the company must cascade down to the team and must be aligned with what they have control over. When a business succeeds, it must be ensured that the team also feels like they have succeeded. It is effective when everyone feels like they are having a meaningful impact on the results of the business.

Trust: A team should trust the founder and other members. Lack of trust within a team causes low reliance on one another for getting work done. It can also lead to blame game, low productivity, office politics, overburdening etc.

Style of Working: In addition to adding people with different skills, people with varied work styles and diverse backgrounds that complement the culture of the organization and rest of the team should be considered to brought on board. Diversity in thought and experience within a team tends to bring the best thinking and fastest pace of innovation, but can become difficult to manage.

Communication Skills: For smooth functioning of a team, each member must be consistent and clear in their communications. Clear communication helps everyone in the team to understand what’s expected and how it’s measured. It must also be ensured that no member offends the other.

Activity IX

For this activity, you have to work on the following problem:

How can the problem of waste generation be solved? This could include e-waste, plastic waste, greenery/kitchen waste, hazardous waste etc.

Get into groups of 7.

Take a piece of paper.

Any one member has to start with writing an idea to solve the problem on the paper.

Then, pass the paper to the next person in the group.

The next person has to build on the idea written by the first person and then pass it to the third person. The third person will then build on the idea written by the second person and so on.

This will continue once all people in the group have built on the idea of the previous person. The final idea will then be discussed and refined by the group and shared with the class.

Adaptability

Adaptability refers to displaying the capability to adapt to new, different, or changing requirements. It is the ability to think, draw conclusions, adapt to changes, and learn quickly. Adaptability is the capacity to adjust one's thoughts and behaviours in order to effectively respond to uncertainty, new information, or changed circumstances. Adaptability encompasses cognitive, behavioural, and emotional adjustments. As a disposition and skill, adaptability is essential to an individual's psychological health, social success, and academic and workplace achievement. Individuals who are adaptable exhibit key behaviours like thinking and acting effectively under pressure, and adjusting timelines, results, and expectations appropriately when change is needed.

Adaptability can be practiced in different ways. In general, students are expected to adapt to changes and learn new ideas relatively quickly for exams and real-world application. Self-studying is also a way to practice adaptability to test yourself on how well you can learn new concepts, draw conclusions, and generate your own examples. Adaptability can be exhibited in classroom during projects, when their trajectory changes. Group projects force students to adapt to different thinking and learning styles to effectively work together and build on each other's strengths. This also develops the skill of adaptability.

In business, adaptability becomes a survival skill as the nature of businesses is dynamic. Uncertainty around globalization, new technologies, market trends, etc., poses a tremendous challenge for applying the right business strategy. Everything changes with the speed of light so it becomes very difficult for entrepreneurs to craft strong strategies. Before planning and strategizing in the first place comes one essential management approach is adaptability.

Entrepreneurs are people who dedicate their lives to disrupt, pay the price and bring change and it is impossible to accomplish this without developing the trait of adaptability and persistence. Adaptability and persistence create amazing opportunities for entrepreneurs. All entrepreneurs, have to think of ways to embrace adaptability in their business, in terms of their business model, team, operations etc. This also creates the need for them to teach their team members, their customers and even their inventors to get comfortable with constant change.

Some ways to practice adaptability:

- Consider new ways of doing things
- Employ unique analyses and generate innovative ideas in complex areas
- Integrate seemingly unrelated information to develop creative solutions
- Develop innovative methods of obtaining resources when insufficient resources are available
- Discard approaches that are no longer working
- Be willing to change as the internal and external environment evolves

- Show tolerance learn to deal with ambiguous, unstructured situations
- Take effective action even without all the necessary facts in hand
- Change plans, goals, decisions, actions, or priorities to deal with unpredictable or unexpected events, pressures and situations when necessary

Activity X

In this activity, we will make a story using other classmates' inputs. To do this, please follow the steps given below:

Get in groups of 10.

Any one person in the group has to start a story from "Once upon a time....." and stop after speaking for around 1 minute.

As the first person stops, the second person has to continue the story started by the first person.

Similarly, after the second person speaks for 1 minute, the third person has to continue the story from where the second person stopped and so on.

This goes on until the story is completed by the tenth person.

After doing this exercise, reflect on the following questions:

Did you find challenging to adapt to someone else's story? Why?

What did you learn about yourself from this exercise?

On a scale of 1 to 10, how would you rate your skill of adaptability?

Barriers to Entrepreneurship

Recognizing a need and having an idea of how to fill the gap or need, are rarely a strong enough basis for launching a new venture, particularly if the entrepreneur needs to borrow capital. Most successful entrepreneurs also create a business plan, a formal document that contains a statement of purpose, a description of the products or services to be offered a market analysis, financial projections and some management procedures designed to attain the firm's goals. Before they can write a business plan, though, entrepreneurs must be aware of the barriers to entry.

Unsupportive business environment: Lack of supportive and market-augmenting governmental regulations serve as a barrier to entrepreneurship. For example, Russia leads all other large nations in having an unsupportive business environment because they lack rule of law, enforce regulations inconsistently, allow rampant corruption and bribing, allow regulatory authorities and inspectors to act in a predatory nature which therefore requires friendly ties with government officials and bureaucrats to smooth the way for businesses to operate.

Employee related difficulties: Building an employee asset base for the enterprise is one of the more daunting and sometimes overlooked tasks. Entrepreneurs must find and select the best-qualified employees who are motivated and willing to grow with the venture. Then they must ensure the employees do not leave. This task becomes a barrier when employee

expectations increase, governmental regulations related to labor employment are hardened, and employee costs grow.

Market entry regulations: Governmental rules, taxation, environmental regulations, lending requirements and licensing are all barriers to entrepreneurship. Most countries license market entry and the creation of new firms to protect incumbents in certain industries and professions. Other barriers to entrepreneurship are predatory tax behavior of authorities, lack of property rights and tax disadvantages.

Shortage of funds and resources: Finding the money to start up an enterprise is a leading barrier to entrepreneurship. Without funds, any person cannot begin to organize, train, develop and sell product.

Lack of Entrepreneurship Opportunities: Venture creation requires existing marketplace opportunities with possibilities known to the entrepreneur and favorable odds for success for entrepreneurial “spirit” to succeed.

Lack of Entrepreneurial Capacity: Entrepreneurial capacity is the existence of people with entrepreneurship qualities, willingness and motivation to initiate new ventures. Opportunities go untried until someone comes along with an eye for possibility and a can-do attitude. Some cultures may discourage entrepreneurial capacity resulting in a low rate of new firm entrance.

Lack of Adequate Entrepreneurship Training: Training and education can be a robust incubator for new ventures. This includes training in technical skills, managerial skills, entrepreneurial skills and entrepreneurship.

Lack of Appropriate Technical and Practical Skills: People tend to use the skills they have acquired to pursue entrepreneurial initiative. Lacking the appropriate skills and knowledge inhibits economic development.

Difficult Access to Market Experience: The essence of leadership is first learning and doing before leading. Therefore, the capability to start a business is propelled by previous education and work experience. Rushing into a new market because it looks attractive and rewarding without having some experience and background in it can be fatal. Experience in a related business before start-up is positively correlated to the probability of success.

Fear of Failure: Entrepreneurs have to decide whether to take action so they don’t miss the boat, while knowing that hasty action may cause them to sink the boat.

Aversion to Risk: A psychological barrier closely related to the fear of failure is aversion to risk. Entrepreneurs must take initiative, create structure with a social-economic mechanism and accept risk of failure. Entrepreneurs have to be risk takers while those who are risk averse will seek the security in an existing establishment.

Identifying Fears

Fear is defined as an unpleasant feeling triggered by the perception of danger, real or imagined. It is a fundamental part of human psychology. Our brains are wired to feel fear because it helps us avoid calamity; it keeps us safe. But fear can also hold us back if we let it.

Fear feeds on fear, meaning the more we try to avoid something we're afraid of, the bigger and deeper our anxiety grows. To overcome this, we must face our deep-seated misgivings and worries. We have to acknowledge our fears and find ways to move beyond them.

In the process of entrepreneurship, many fears serve as obstacles in taking action. If entrepreneurs don't confront them, the fears can ultimately consume them. Some common fears seen in entrepreneurs are as follows:

Fear of failure: The fear of failure is like a tiny voice whispering into your ears that everything could go wrong in the business. The best way to overcome this fear is to accept that failure is possible, even for the most gifted entrepreneurs. With every failure comes an added value in strength, courage, wisdom and knowledge. Whenever you experience any setback, do a little soul searching to find out what mistakes were yours, why you made them and what you learnt.

The Fear of being wrong: This is also another common fear most entrepreneurs face when setting up a business. The fear of being wrong is a bit more subtle than the fear of failure, and therefore potentially deadlier. While the fear of failure can prevent you from starting a business, the fear of being wrong can cause you to pursue a foolhardy business strategy even when it's crystal clear that you need a change of approach. To overcome this fear, you need to first recognize this as a problem that can harm your business and put aside any ego that makes you stay on a course of action because you are emotionally attached to a certain way of doing things or getting results.

The Fear of not being an expert: Even though you probably know enough about your business or product to make important decisions or solve most of the nagging issues that may arise, many entrepreneurs still face the fear of not being considered as experts in their line of business. This fear, however minor it may seem, has a way of limiting your potential as an entrepreneur. For the things about a business one might not know, there is no shame in constantly learning and finding answers to them. Learning about the business is a continuous process that will surely lead to perfection in the long.

Fear of being pushed into uncomfortable situations: Many people fear public speaking more than death. Just the thought of it puts us on edge and makes us anxious. With practice, however, we can become comfortable pushing ourselves outside our comfort zones. But it won't happen without getting into the right mindset and prepping to take on this challenge. One can start by taking small steps and doing things just outside of their comfort zone.

Fear of taking risks: A risk can pay off with amazing success, or it can lead to a downward spiral and failure. But there is an important difference between dangerous, unmitigated risk and thoughtful, calculated risk. Dangerous risk takers are like gamblers, betting it all on something that isn't proven. With a calculated risk, you have strategized each step of the way. One must move incrementally towards their goal, carefully assessing their level of investment and overhead. Calculated risks are key to every success.

Fear of the unknown: Uncertainty registers in our brain like a blaring alarm. We often avoid the unknown because we fear change. We are afraid of losing control and being unable to manage potential outcomes. Allowing ourselves to take a massive leap into the unknown is terrifying because we have no guarantees of how things will turn out. The unknown will certainly lead to change of some kind.

Activity XI

Take 5 minutes to think about your future goal. Now make a list of things that you feel are certain obstacles in achieving your future goal.

Which of these obstacles make you feel negative emotions such as anxiety, stress, sorrow, tension, worry, helplessness etc.? Thinking about it, understand and identify certain fears you feel about your future life and mention them below:

Now, choose your biggest fear and write down ways to overcome it in the space given below:

Process of Entrepreneurship

There are various personal, social and environmental factors that play a role in whether the person pursues the idea or not. In entrepreneurship, the design thinking process of empathize, define, ideate, prototype and test (dschool.stanford, 2010) can be used to take action on your ideas.

Let us start by understanding how one can act on their idea and follow some steps in the entrepreneurial process.

Idea Exploration: Once you have an idea, you need to first understand how people, especially customers respond to it. Through your idea, you propose a solution or an answer. However, before that, understand what the problem or the question is. In order to understand the problem deeply, you have to talk to those who feel it is a problem for them. Interact with

and observe your potential customers and other people who can or will be affected if the idea turns into a business. In this process, the design thinking skill of empathy is extremely useful. Empathy is required to listen and understand the emotion of the person. In turn, it helps to dig deeper and identify the things that are not so obvious. Sometimes, there is a difference between what people say and what they actually do, thus, it is important to engage with the user and observe the behavior as well. Ask yourself what exactly your customers need and what problems are you solving for them. Conduct primary and secondary qualitative and quantitative research. Initial quantitative research can be done through market surveys and by modelling the choices of customers.



Data Analysis: Research conducted for your idea must focus on collecting data about customer problems and requirements, preconceptions, potential objections, preferences and a sense of price sensitivity. Apart from this, research about direct and indirect competitors as to what they are doing, what process do they follow, what kind of a customer base do they have, what is the market share etc. This will help you think about how your idea is going to be different. After collecting this data, analyze your discoveries, make sense of the information, look for insights and try to understand how your research has helped to refine your idea. The data analysis process helps you define the problem or need you are solving. Do a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis for the data collected.



Idea Development: After analyzing and synthesizing the data, you should get a clearer picture about the prospects of your business idea. At this stage, you start to challenge the assumptions that you had made when you came up with the idea and refine the idea. You might pivot from your original idea and find other interesting insights about customer problems or your research might show that your assumptions about customer needs are turning out to be true. In the first case, you start to build on the insight that you have gained and dig deeper into it by interacting with more people and then brainstorming ideas to solve the problem. In the second case, you start to think of solutions and build a model or a prototype of what your solution or business idea (product/service) would look like.



Experimentation: Experimentation refers to conducting small experiments to get customer feedback by giving them an understanding of what your product/service would look like. There could be innovative ways to conduct such experiments. For example, a business idea trying to solve the problem of children being scared of hospitals, doctor's clinic, medicines and injections showed an animated video in which the injection and medicines are talking to the child and playing around the doctor, to all children that visited a doctor's clinic in a day and recorded their responses. These experiments help you improve your initial prototype or model and keep improving it, taking into account customer feedback till you reach your final prototype. Research and prototyping helps you refine and shape your opportunity in a cost-effective manner before your initial market test. Only a market test can truly validate whether

your idea can be turned into a business. It helps to measure what you have created. Market tests start after the final prototype of the product/service has been designed. Market tests are most-effective once you have a minimum viable product. Entrepreneurs go through multiple escalating market tests, each building upon the previous test.



Business Planning: After conducting multiple market tests, you must have evidence of number of users that used your product/service and showed likeliness to use or revenue generated if you made any sales or took any pre-orders. Having this helps you conclude and prove that there is a demand for your business idea and it can be done in a viable way. Now, you develop your final product or service and start planning different functions of your business. You start by identifying what resources you would need for each business function to turn the idea into a business venture. You start to think about getting one or two people on-board who can help you grow your idea. The business plan is a written document that consists of an executive summary, market analysis, business description, details of product or service, marketing and sales, operations and team, financial statements, funding and development.



Marshalling Resources and Financing: After planning, it is important to work on marshalling and acquiring the resources as identified in the business plan. This would include physical, human, intellectual and financial resources. The key resources will depend on the type of business you are starting. There are various ways to finance, such as friends & family, forming a partnership, borrowing or debt financing from banks, crowdfunding on online platforms and equity financing. The financial statements in your business plan must include all the start-up costs you would incur. You must learn how to pitch your idea to investors. It is also important for you to compare different financing options and taking advice from experts. You would not want to give a very high stake of your business to the investor for very less money.



Launch: After fulfilling the needs of financing and business planning, you are ready to launch your start-up. In the initial stage, you hire more people, develop a customer base, build a network, adjust the marketing and operations business plan and start dealing with uncertainty. One of the most effective ways to promote your business during and after the launch is to talk the most about your business wherever you go. Apply for conferences, ted talks, forums etc. and share about your business venture.

Activity XII

Entrepreneurial Process is drawn out of the process successful entrepreneurs followed to execute their business idea. It is generic in nature. The exact process that one entrepreneur would've gone through might not be the exact process that another entrepreneur would've gone through. After reading the entrepreneurship process, you have to develop your own understanding of it.

Take a chart paper and in groups of 4, make a flow chart of the entrepreneurial process in your words. Then, draw a small version of the final chart in the space given below:

Business Planning

A business plan is a document that describes what a business plans to do and how it plans to do it. It is a written description of a business's future. It serves as a guide and a roadmap for a business and outlines its goals and details how those goals are planned to be achieved.

Thus, a business plan conveys business goals, strategies, potential problems and ways to solve them, the organizational structure, the amount of capital required to finance the venture and other such important information.

Business plans can help perform a number of tasks for those who write and read them. They are used by investment-seeking entrepreneurs to convey their vision to potential investors. They may also be used by firms that are trying to attract key employees, prospect for new business, deal with suppliers or simply to understand how to manage their companies better.

Components of a Business Plan

Executive summary:

Executive summary is like the first impression or the calling card of a business. It is the first thing that anyone reads or learns about one's business. It provides a brief and quick summary and overview of the entire business plan, covering key aspects such as the problem a business solves, the solution to the problem, the target market, key financial highlights, and a summary of who does what on the management team.

An executive summary has to be concise, succinct and hit the key highlights of the plan. While it is difficult to convey every thing one might want to convey in the executive summary, keeping it short is critical. Many potential investors never read beyond the executive summary and assess from the summary itself if the business interests them or not. Hence, it needs to be compelling and intriguing.

The Opportunity:

In this section, it is explained why one has a strong business opportunity. It describes the market, including market analysis, data, projections, descriptions, and competition.

Target market: As critical as it is that a business is solving a real-world problem that people or other businesses have, it's equally important to detail who is the customer. Understanding the target market of the business is key to building marketing campaigns and sales processes that work. And, beyond marketing, it is the target market that defines how the business grows.

Market trends: In this, the most important changes occurring in the different factors about the target market are described. The preferences, needs, demographics, or purchasing behaviours etc. of potential customers are mentioned and elaborated in terms of how they are changing. Ideally, it is explained how those trends would favor the products or services of the business over those of your competitors. For example, if people in the market is increasingly using their smartphones for tasks that they used to do on a computer, perhaps the mobile app is potentially well positioned to capture a bigger part of the market.

Market growth: In this section, it is explained how the target market has been growing or shrinking in recent years. Research done using internet searches, trade associations, market research firms, journalists or other credible sources to gauge market growth is mentioned. A growing market is encouraging, since it suggests stronger demand for a specific solution in the years to come.

Competition: A competitor analysis, in which names, location, products and services are given and compared to the products/services of the business. The objective of this analysis is to assess and exhibit the strengths of the business over competitors.

Products and services:

The products and services section of the business plan delves into the core of what one is trying to achieve. In this section, things that are detailed include the problem that the business is solving, how it is solving it, the competitive landscape, and the business's competitive

edge. Depending on the type of company you are starting, this section may also detail the technologies used, intellectual property owned, and other key factors about the products that a business is building now and planning on building in the future.

Business overview:

For external plans, the overview of the business is a brief summary of the business' legal structure, ownership, history, and location. It is common to include the vision and mission statements in the business overview, but that is certainly not a mandatory component of all business plans. The company overview is often omitted from internal plans.

Marketing and sales:

The marketing and sales plan details the strategies that the business will use to reach the target market. This portion of the business plan provides an overview of how the business will be positioned in the market, how the products and services will be priced, how its offerings will be promoted, and any sales processes that will be needed in place.

Operations:

Depending on the specifics of the business, plans related to locations and facilities, technology, regulatory issues etc. are included in this section. The entire process about how the business will source, function and deliver its core value is explained.

Milestones and metrics:

Plans are nothing without solid implementation. The milestones and metrics section of the business plan lays out concrete tasks that the business plans to accomplish, complete with due dates and the names of the people to be held responsible. It also details the key metrics that will be used to track the growth of the business. This could include the number of sales leads generated, the number of page views to the website, or any other critical metric that helps determine the health of the business.

Team:

The management team section of a business plan is especially critical for entrepreneurs seeking investment. The management team section includes relevant team bios that explain why the management personnel is made up of the right people for the roles. After all, good ideas are a dime a dozen, it is a talented entrepreneur and his/her team that can take those ideas and turn them into thriving businesses. Business plans should help identify not only strengths of a business, but areas that need improvement and gaps that need to be filled. Identifying gaps in the management team shows knowledge and foresight, not a lack of ability to build the business.

Financial plan:

The financial plan is a critical component of nearly all business plans. Running a successful business means paying close attention to how much money is being brought in, and how much money is being spent. A good financial plan goes a long way to help determine when to hire new employees or buy a new piece of equipment. Especially for startups seeking

funding, a solid financial plan helps to figure out how much capital the business needs to get started or to grow, such that there is knowledge about how much money to ask for from the bank or from investors.

A typical financial plan includes:

- Sales forecast
- Personnel plan
- Profit and loss statement
- Cash flow statement
- Balance sheet

Answer Key for Activity VIII

Item	Actual Score (Individual score)	(Individual score)	Actual Score	(group score)
Box of matches	15		15	
Food concentrate	4		4	
Nylon rope, 50 feet	7		7	
Parachute silk	8		8	
Portable heater	5		5	
Two 0.45 caliber pistols	11		11	
Dehydrated pet milk, One case	12		12	
Two 100-Pound oxygen tanks	1		1	
Star Map-Moon Constellations	3		3	
Life raft	6		6	
Magnetic compass	14		14	
5 gallons of water	2		2	
Signal flares	13		13	
First-aid kits, injection needles	9		9	
Solar powered FM transmitter	10		10	

Role of Green Jobs

Industry experts remain hopeful and excited about green jobs market, since industries are adopting large scale, energy efficiency measures. There are jobs in solar and wind installations, clean car engineering. Households are switching to solar energy, families are purchasing alternative energy cars, and new jobs are being added to the market place to meet the increasing demand.



Picture of coal miners

There is promising statistics in the green jobs industry. Clean energy has experienced incredible growth and success in the past decade and is poised to continue to grow in the coming decade; this will collaborate with business to advance policies that will do well to environment and economy. These technologies are not so costly also, thereby they are adapted widely.

Role of Green jobs in toxin free homes:

In our daily lives we do household work, that releases harmful gases into the atmosphere and contribute to the warming of our planet. Green jobs will promote the usage of ecofriendly raw materials and conserve energy.

The following is the list of steps; green jobs can take to reduce greenhouse gas emissions;

- Reuse, Reduce, Recycle
- Use less heat and reconditioning
- Replace your light bulbs
- Drive less drive smart
- Buy energy efficient products
- Use less hot water
- Use the off buttons
- Plant a tree.

Green jobs in Solar and wind power:

The green jobs are as follows;

Energy Auditors- they conduct audits determine how energy efficient the building/home are.

Chief Sustainability officers: they oversee green activities in their organization.

Wind/ Solar energy engineers: they design and develop wind farm systems

Role of green jobs in Water Conservation:

To protect existing and future water supplies, by ensuring that resources are not mismanaged, over exploited or otherwise used in manner that would be considered damaging.

The other jobs in water conservation are;

Water treatment specialist.

Water Auditor

Water policy Analyst

Water resource planning manager

Water Quality Monitoring

Water conservation Representative.

The above mentioned opening are anywhere, where there is a natural water supply for all users and future generations, identify potential problems to the ecology or environmental health and mitigate them.

Green jobs in waste Reduction Recycling and Reuse:

Eco cycle- zero waste creates jobs, recycling, composting and reusing create a lot green jobs. Recycling and reuse create at least 9 times more jobs than landfills and incinerators. E.g. we need force for collecting, processing and preparing materials.

Its common knowledge that recycling materials helps the environment by reducing waste..... depending on materials manufacturers can save up to 60% of their production costs by using recycled materials rather than obtaining, refining and extracting brand new substances ,e.g. paper, aluminum, plastics.

Green jobs in Tourism:

Indonesia is an example of green tourism. Green tourism is also referred as 'New experience economy', green tourism offers new tourism paradigm; we pay to do things, not to have new things. Tourists are buying experience not product. It promotes tourists to be prosumers, i.e. to care about the future. Green tourism makes an optimal use of environmental resources. The following are the principles of green tourism; Respect socio cultural authenticity of host country. Provide adequate wages and safe working conditions. Green jobs are required to plan;

- Destination management
- Destination managers.
- Trainers.

Green Jobs in building and construction:

Green buildings use ecofriendly materials, benefit environment by conserving energy. There are plenty of jobs in the construction sector, this sector employs millions of people, but suffers from a skill shortfall. Attracting talent and investment is a key challenge. Green building offers a chance to be part of the solution to global challenges.

The list of green jobs is as follows;

- Construction worker, crew member
- Designer
- Carpenters
- Building Planner and coordinators
- Insulators
- Weatherization
- Concrete labors
- Highway laborers
- Demolition experts

Role of green Jobs in limiting Green house emissions

The key to environmental protection is to prevent the degradation of the natural environment, which is important for all living creatures, one of the biggest problem in the environment is related to fossil fuels, which leads to pollution , climate change and natural resource depletion.

Green jobs are decent jobs that contribute to preserve or restore the environment, be they in traditional sectors, such as in manufacturing and construction sectors or in the emerging green sectors such as renewal able energy.