The LibreOffice suite is a collection of application programs for word processing, preparing spreadsheets, creating presentations, drawing diagrams, working with databases & composing mathematical formulae. LibreOffice has been translated (localized) into 40 languages.

LibreOffice Suite consists of following application programs :

Logo	Application Name	Purpose					
	Writer	Writer is a word-processing application. It is compatible with a wide range of document formats. It is used to export work in several formats including PDF. It has extensive WYSIWYG(What you see is what you get) word processing capabilities, it can also be used as a basic text editor. File extension for Writer application is '.odt'.					
	Calc	Calc is another name for a spreadsheet, it is used for different kinds of calculations, creating graphs, using different mathematical formulae and many more. File extension for Calc application is '.ods'.					
Į	Impress	Impress is used for creating a presentation. The presentation can be exported as SWF files, allowing them to be viewed on any computer with Adobe Flash Player installed. It is used to create slides with different elements and a wide range of graphic objects. File extension for Impress application is ' .odp '.					
2	Draw	It is a vector graphics editor and diagramming tool which can be used for creating flowcharts. It includes features used for desktop publishing. It can also be used for editing a pdf file. File extension for Draw application is '.odg'.					
	Base	Base is an open source database management system. Base is designed to allow users to easily create, access, modify, and view databases and their data like-tables, queries, forms, and reports. Base includes software wizards to assist users with various aspects of the program. File extension for Base application is '.odb'.					

Note For Teacher : Refer Appendix for installation.

 Table 1 : Applications and their purpose

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LibreOffice Writer

LibreOffice Writer is free and an open-source word processor component of the LibreOffice software package. Writer is similar to other word processors with some identical features.

Double click on the icon of 'LibreOffice Writer' present on desktop. LibreOffice Writer Screen consists of the following parts :



Fig. 1 : Libreoffice Writer Screen

- A) Title Bar : It is the topmost bar present on the screen of Writer. It displays icon of the application, name of the file and name of the application for example 'Untitled 1–LibreOffice Writer'. It consists of three buttons on the right corner as minimize, maximize/ restore and close.
- **B)** Menu Bar : It is present below the Title bar. It displays the name of different menus such as File, Edit, View, Insert, Format, Styles, Table, Form, Tools, Windows, Help etc. Each menu consists of a drop-down list (Pop-up) of various options related to that particular menu.
- **C) Standard Tool Bar :** Standard tool bar consists of different icons which are used for standard operations (regularly repeating operations) like opening a new document, saving a document, printing a document, cut, copy, paste, delete and many more.
- **D)** Formatting Tool Bar : Formatting tool bar consists of different icons which are used for formatting the selected text. It displays icons like font name, font size, font color, bold, italics, underline and many more.

- E) Sidebar : The Sidebar is normally open by default on the right side of the Writer window. The Writer Sidebar contains five decks sidebar with different icons by default : Properties, Page, Styles (shown as Styles and Formatting in some installations), Gallery and Navigator. Each deck can be opened by clicking its corresponding icon on the Tab bar to the right of the sidebar. Each deck consists of a title bar and one or more content panels. A panel is like a combination of toolbar and dialog. Toolbars and Sidebar panels share many functions. If the Sidebar is not visible on screen, it can be made visible from View → Menu. Width of the Sidebar is adjustable.
- **F) Status bar :** The Writer status bar is located at the bottom of the workspace. It provides information about the document. It can be hidden by deselecting it in the View menu.
- **Basic Operations for Writer, Calc, Impress :**
- A) Creating a New file : A new file can be created, by choosing.

File Menu \rightarrow New \rightarrow Select appropriate file type.

- B) Saving a File : To save a File
 - Choose File Menu → Save → Select the location → Type name of the file → Click on 'Save'.
- C) Opening an Existing File : To open an existing File,
 - Choose File Menu → Open→ Select the location→Select name of the file→Click on 'Open'.
- D) Printing a File : For printing a File,
 - Choose File Menu → Print → Select Printer name → Select number of copies → Click on 'Print'.

Commonly used options with Writer, Calc, Impress :

- A) Cut, Copy and Paste : These options can be used with help of the Keyboard, Menu bar or Standard toolbar as follows respectively.
 - Press the Ctrl+X(Cut) / Ctrl+C(Copy) / Ctrl+V(Paste) keys.
 - Choose Edit Menu \rightarrow Cut / Copy / Paste option.
 - Click on the required $\boxed{}$ $\boxed{}$ $\boxed{}$ $\boxed{}$ $\boxed{}$ icon on the Standard Tool bar.
- B) Find, Replace : These options can be used by choosing
 - Choose Edit \rightarrow Find & Replace on the Menu bar.
 - Click on 🔊 icon on the Standard Tool bar.

'Find' option is used to find a particular text in the document and 'Replace' option is used to replace a particular text with some other text.

Various Formatting options in Writer :

A) Formatting the Text : For formatting the text, first select the text and use the required formatting options from 'Sidebar' or 'Formatting Tool Bar'. Character formatting options are as follows :



Table 2 : Formatting icons and text

B) Formatting the Paragraph : Select the paragraph and then select the required formatting option from 'Sidebar' or 'Formatting Tool Bar'. Paragraph formatting options are as follows :

* Align Left	* Above Paragraph Spacing						
* Align Center	* Below Paragraph Spacing						
* Align Right	* Line Spacing						
* Justified	* Increase Indent						
* Toggle Bulleted List	* Decrease Indent						
* Toggle Bulleted List $2 = -$	* Switch to Hanging Indent						
* Background Color	* Before Text Indent						
* Increase Paragraph Spacing □→	* After Text Indent						
* Decrease Paragraph Spacing [≡] [★]	* First Line Indent						
Table 2 : Paragraph Formatting icons and text							

Inserting a Table :

Table is used to display the text in proper and organized manner.

• Choose Table Menu \rightarrow Insert Table \rightarrow Select number of rows and columns \rightarrow Insert.

Mail Merge :

Mail Merge is a powerful tool for writing a personalized letter or E_Mail Message to many people at the same time. It imports data from another data source such as a database, spreadsheet, or table into document. This feature is usually employed in a word processing document which contains fixed text (which is the same in each output document) and variables (which act as placeholders that are replaced by text from the data source).

Steps to do this activity are :

- Open a new blank Document → Click on 'Tools' Menu → Select 'Mail Merge Wizard' option → Click on 'Use the current document' option → Click on 'Next' Button.
- **2.** Click on 'Letter' option \rightarrow Click on Next.
- **3.** In Next Window, in 'Insert Address Block' section under first point click on 'Select Different Address List'.
- 4. In Next window, 'Select Address List', Click on 'Create' Button.
- 5. In 'New Address List' window, click on 'Customize' button.
- 6. In 'Customize Address List' window select a field which is not required for database and click on 'Delete' button → If you want to add a new field then click on 'Add' button → Type a name in 'Element Name' box → Click on 'Ok' button → After selecting the required fields click on 'Ok' button.
- Now in 'New Address List' window type the required information in the fields → Click on 'New' button to add a new record → After filling all records → Click on 'Ok' button → in next window type name for the database in 'File Name' box → Click on 'Save' button → Click on 'Ok' button → Click on 'Next' button → Click on 'Next' button.
- 8. In next window, select position for address block and salutation then click on 'Finish' button.

Now in the present document after salutation type invitation letter matter \rightarrow Click on 'Format' Menu \rightarrow Click on 'Page' \rightarrow select any one page background like Color/ Gradient/Bitmap/Pattern \rightarrow Click on 'Apply' \rightarrow Click on 'Ok' \rightarrow Click on 'Insert' Menu \rightarrow if desirable insert an Image/Shape \rightarrow Below Formatting Tool Bar a 'Mail Merge Tool Bar' will appear. \rightarrow Click on 'Save Merged Documents' option \rightarrow Type name for that new document in 'File Name' box \rightarrow Click on 'Save' button.

Now open that saved (merged) document. In the document the number of letters created are equal to the number of addresses present in the 'Address List'. Example : Invitation to Parents for School Exhibition.



Fig. 2 : Screen before merging text and data source.



Fig. 3 : Screen after merging text and data source.

Check Spelling :

This option is used to correct mistakes identified by the Writer Application and displayed as green and red wavy lines for grammatical and spelling mistakes respectively.

• Choose Tools Menu → Spelling → with the help of various options correct the spelling as well as grammatical mistakes.

LibreOffice Calc

LibreOffice Calc is the spreadsheet component of the LibreOffice software package. It is used for doing calculation and analysis of data.

Double click on the icon of 'LibreOffice Calc' present on desktop. The screen of Calc will be displayed as follows.

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Fig. 4 : LibreOffice Calc Screen.

Various activities in Spreadsheet :

A) Simple calculations : In Calc, formula can be created for doing simple calculations.

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Fig. 5 : Simple calculation.

Steps :

- **1.** First fill up the numeric data in cells
- 2. Click inside the cell where the result has to be calculated.
- **3.** Type '=' sign
- 4. To calculate sum, type the word 'sum'
- 5. Type '(' bracket.
- 6. Type the range of cells [while writing the range of cells, write the starting cell's address followed by the ':' sign and then the last cell's address]

- 7. Type ')' bracket
- 8. Press 'Enter' key.

Another method to calculate the sum is, place the cursor in the cell where result should be calculated and type '= B2 + C2' press 'Enter' key.

In Calc built-in functions as well as user defined functions are available for easy calculations. Built-in functions means functions provided by the application. User defined functions means user writes function according to the requirements. Some common built-in functions are count(), average(), min(), max(), mode().

B) AutoFill Series : Various series can be created by using 'AutoFill Series' option like Number (Number, Table, Odd, Even), Weekdays, Month Names.

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Fig. 6 : AutoFill Series.

- **C) Sort :** Sort option is used to arrange the records in the alphabetical order. The order may be ascending or descending. The same is possible for numeric fields.
- **D) Create a Chart :** Chart is the graphical representation of numeric data. Various types of charts can be inserted such as pie chart, bar chart, line chart, column chart. Steps are as follows.
 - Create a table with some records → select the complete table → Click on 'Insert' menu → Click on 'Chart' option.
 - 2. A window will appear, which starts a chart wizard → select the 'Chart type' → put check mark to '3D look' if you want a 3D view → select 'Shape' → click on 'Next' button.
 - 3. In next window 'Data Range' is displayed, click on 'Next' button.
 - 4. In next window 'Data ranges for each individual series' is displayed. click on 'Next' button.

- 5. In next window, type the required information for the fields like Title, Sub title, X-Axis, Y-Axis, Z-Axis → Click on 'Finish' button.
- **E)** AutoFilter (Standard Filter) 🔽 : Filter option is used to filter the record according to some value or some criteria. To do this activity-
 - Select the records → Click on 'AutoFilter' icon → Click on any one field's drop down list → Click on 'Standard Filter' [It can be selected from Data → More Filters] → Standard Filter → Select 'Field Name' → Select condition → Type a value → Click on 'Ok' button.

LibreOffice Impress

LibreOffice Impress is one of the application in LibreOffice Suite, used to create a presentation. Presentation is a powerful tool to express the knowledge.

Double Click on the icon of 'LibreOffice Impress' present on Desktop. The screen of Impress will be displayed as follows.



Fig. 7 : LibreOffice Impress Screen.

Creating a presentation :

A) **Preparing a slide :** When a new blank presentation is started, a blank slide is displayed on the screen. Some instructions are provided on the slide. Follow the instructions to complete the slide. While creating a presentation, type only the main points which are to be explained at the time of presentation.

A new slide can be inserted by using Keyboard, Menu bar or icon present on Standard Toolbar as follows respectively.

• Press the 'Ctrl + N' keys.

- Choose Slide \rightarrow New Slide from the Menu bar.
- Click on the New Slide icon on the Standard Toolbar.
- B) Setting Background : A slide can have a background of an image or a colour.
 - Choose Slide Menu→ Set Background Image/Properties.
- **C) Slide Transition :** Slide transition are the effects given to complete slide. Click on the slide for which effects to be given.
 - Choose Slide Menu→ Select 'Slide Transition' option
- **D) Custom Animation :** Custom animation are the effects for objects present on the slide.
 - Click on any object present on Slide → From Side bar Select Custom Animation→ Choose Category, Effect, Direction, Duration etc.
- **E) Slide Show :** Slide Show option is used to see the presentation on a full screen with all effects. A slide show can be started from the Keyboard, Menu Bar or icon present on the Standard Toolbar as follows respectively.
 - Press the 'F5' Function key.
 - Choose Slide \rightarrow Start From First Slide from Menu bar.
 - Click on the 'Start From First Slide' icon on the Standard Toolbar.

Skill Set 1 - Daily Computing

LibreOffice :

SOP 1 : Create a Resume

The resume should contain the following :

- Title at the center with applicable font and size.
- It should contain points such as Name, Address, Mobile Number, Date of Birth, Nationality, Caste, Category, Hobbies etc. Add some extra points.
- For educational qualifications a student should insert a table.
- At the end students should write a few lines about their aim.

SOP 2: By using Mail Merge send an invitation for your birthday party.

- Use mail merge feature.
- Send invitation to at least 5 friends.

SOP 3 : Create a mark list. The mark list should display :

- Fields as Name, Math, Physics, Chemistry, Biology, Total, Percentage.
- Below each subject find out the lowest marks and highest marks.
- Enter minimum 10 records.
- Declare the first three ranker students.
- Create a chart based on the above data.

SOP 4: Create an Informative presentation on your college.

- Presentation should contain minimum 8 slides.
- One slide should contain a chart.
- One slide with an image.
- Each slide should contain custom animation & slide transition effect.

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