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# LibreOffice

## Video Tutorial LibreOffice Full Playlist Available on YouTube Channel **UPCISS**

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## Lesson-1: LibreOffice

LibreOffice is a powerful and free office suite, used by millions of people around the world. LibreOffice is a successor to OpenOffice.org (commonly known as OpenOffice), which in turn was based on StarOffice. Its clean interface and feature-rich tools help you unleash your creativity and enhance your productivity. LibreOffice includes several applications that make it the most versatile Free and Open Source office suite on the market: Writer (word processing), Calc (spreadsheets), Impress (presentations), Draw (vector graphics and flowcharts), Base (databases), and Math (formula editing).

LibreOffice is compatible with a wide range of document formats such as Microsoft® Word (.doc, .docx), Excel (.xls, .xlsx), PowerPoint (.ppt, .pptx) and Publisher. But LibreOffice goes much further with its native support for a modern and open standard, the Open Document Format (ODF). With LibreOffice, you have maximum control over your data and content – and you can export your work in many different formats including PDF.

### What is LibreOffice?

LibreOffice is a free and open-source office suite (Program) and a project of The Document Foundation. It was forked from OpenOffice.org in 2010, which was an open-sourced version of the earlier StarOffice. The LibreOffice suite comprises programs for word processing, the creation and editing of spreadsheets, slideshows, diagrams and drawings, working with databases, and composing mathematical formulae. It is available in 115 languages.

LibreOffice is available for a variety of computing platforms, including Microsoft Windows, macOS, and Linux (including a LibreOffice Viewer for Android), as well as in the form of an online office suite LibreOffice Online. It is the default office suite of most popular Linux distributions. It is the most actively developed free and open-source office suite, with approximately 50 times the development activity of Apache OpenOffice, the other major descendant of OpenOffice.org.

The project was announced and a beta released on 28 September 2010. Between January 2011 (the first stable release) and October 2011, LibreOffice was downloaded approximately 7.5 million times. The project claims 120 million unique downloading addresses from May 2011 to May 2015, excluding Linux distributions, with 55 million of those being from May 2014 to May 2015.

### Applications of LibreOffice

LibreOffice is look like Microsoft Office and its application also work as Word, Excel, PowerPoint and access programs. LibreOffice Include 6 applications which is as per given below:

#### 1. Writer

LibreOffice Writer is a word processor with similar functionality and file support to Microsoft Word or WordPerfect. It has extensive WYSIWYG word processing capabilities, but can also be used as a basic text editor.

#### 2. Calc

LibreOffice Calc is a spreadsheet program, similar to Microsoft Excel or Lotus 1-2-3. It has a number of unique features, including a system which automatically defines series of graphs, based on information available to the user.

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### **3. Impress**

LibreOffice Impress is a presentation program resembling Microsoft PowerPoint. Presentations can be exported as SWF files, allowing them to be viewed on any computer with Adobe Flash Player installed.

### **4. Draw**

LibreOffice Draw is a vector graphics editor and diagramming tool similar to Microsoft Visio and comparable in features to early versions of CorelDRAW. It provides connectors between shapes, which are available in a range of line styles and facilitate building drawings such as flowcharts. It also includes features similar to desktop publishing software such as Scribus and Microsoft Publisher. It is also able to act as a PDF-file editor.

### **5. Math**

LibreOffice Math is an application designed for creating and editing mathematical formulae. The application uses a variant of XML for creating formulas, as defined in the OpenDocument specification. These formulas can be incorporated into other documents in the LibreOffice suite, such as those created by Writer or Calc, by embedding the formulas into the document.

### **6. Base**

LibreOffice Base is a database management program, similar to Microsoft Access. LibreOffice Base allows for the creation and management of databases as well as the preparation of forms and reports that provide end users easy access to data. Like Access, it can be used to create small embedded databases that are stored with the document files (using Java-based HSQLDB and C++ based Firebird as its storage engine), and for more demanding tasks it can also be used as a front-end for various database systems, including Access databases (JET), ODBC/JDBC data sources, and MySQL, MariaDB, PostgreSQL or Microsoft Access.

## **Operating Systems**

The Document Foundation developers target LibreOffice for Microsoft Windows (IA-32 and x86-64), Linux (IA-32, x86-64, ARM) and macOS (x86-64). Community ports for FreeBSD, NetBSD, OpenBSD and Mac OS X 10.5 PowerPC receive support from contributors to those projects, respectively. LibreOffice is also installable on OpenIndiana via SFE.

In 2011, developers announced plans to port LibreOffice both to Android and to iOS. A beta version of a document viewer for Android 4.0 or newer was released in January 2015. In May 2015, LibreOffice Viewer for Android was released with basic editing capabilities. The LibreOffice Impress Remote application for various mobile operating systems allows for remote control of LibreOffice Impress presentations.

## **LibreOffice Online**

LibreOffice Online is the online office suite edition of LibreOffice. It allows for the use of LibreOffice through a web browser by using the canvas element of HTML5. Development was announced at the first LibreOffice Conference in October 2011, and is ongoing. The Document Foundation, IceWarp, and Collabora announced a collaboration to work on its implementation. A version of the software was shown in a September 2015 conference and the UK Crown Commercial Service announced an interest in using the software. On 15 December 2015, Collabora, in partnership with ownCloud, released a technical preview of Libreoffice online branded as Collabora Online Development Edition (CODE). In July 2016, Nextcloud and Collabora partnered to bring CODE to Nextcloud users. By October 2016, Collabora had released nine updates to CODE. The first source code release of LibreOffice Online was done with LibreOffice version 5.3 in February 2017.

## Miscellaneous features

- LibreOffice can use the GStreamer multimedia framework in Linux to render multimedia content such as videos in Impress and other programs.
- Visually, LibreOffice used the large "Tango style" icons that are used for the application shortcuts, quick launch icons, icons for associated files and for the icons found on the toolbar of the LibreOffice programs in the past.
- With version 6.2, LibreOffice includes a Ribbon-style GUI, called Notebookbar, including three different views. This feature has previously been included as an experimental feature in LibreOffice 6.
- LibreOffice has a feature similar to WordArt called Fontwork.
- LibreOffice supports multiple file format.
- LibreOffice has a feature to access files remotely.

## The Document Foundation and LibreOffice

On 28 September 2010, The Document Foundation was announced as the host of LibreOffice, a new derivative of OpenOffice.org. The Document Foundation's initial announcement stated their concerns that Oracle would either discontinue OpenOffice.org, or place restrictions on it as an open source project, as it had on Sun's OpenSolaris.

LibreOffice 3.3 beta used the ooo-build build infrastructure and the OpenOffice.org 3.3 beta code from Oracle, then adding selected patches from Go-oo. Go-oo was discontinued in favour of LibreOffice. Since the office suite that was branded "OpenOffice.org" in most Linux distributions was in fact Gooo, most moved immediately to LibreOffice.

Oracle was invited to become a member of The Document Foundation. However, Oracle demanded that all members of the OpenOffice.org Community Council involved with The Document Foundation step down from the OOO Community Council, claiming a conflict of interest.

## Users and Deployments

- ❖ 2011: The Document Foundation estimated in September 2011, that there were 10 million users worldwide who had obtained LibreOffice via downloads or CD-ROMs. Over 90% of those were on Windows, with another 5% on OS X. LibreOffice is the default office suite for most Linux distributions, and is installed when the operating system is installed or updated. Based on International Data Corporation reckonings for new or updated Linux installations in 2011, The Document Foundation estimated a subtotal of 15 million Linux users. This gave a total estimated user base of 25 million users in 2011. In 2011, the Document Foundation set a target of 200 million users worldwide before the end of 2020.
- ❖ 2013: In September 2013, after two years, the estimated number of LibreOffice users was 75 million. A million new unique IP addresses check for downloads each week.
- ❖ 2015: In 2015, LibreOffice was used by 100 million users and 18 governments.
- ❖ 2016: In August 2016, the number of LibreOffice users was estimated at 120 million.
- ❖ 2018: The Document Foundation estimated in 2018 that there are 200 million active LibreOffice users worldwide. About 25% of them are students and 10% Linux users (who automatically receive

LibreOffice through their distribution). In comparison, Microsoft Office was used in 2018 by 1.2 billion users.

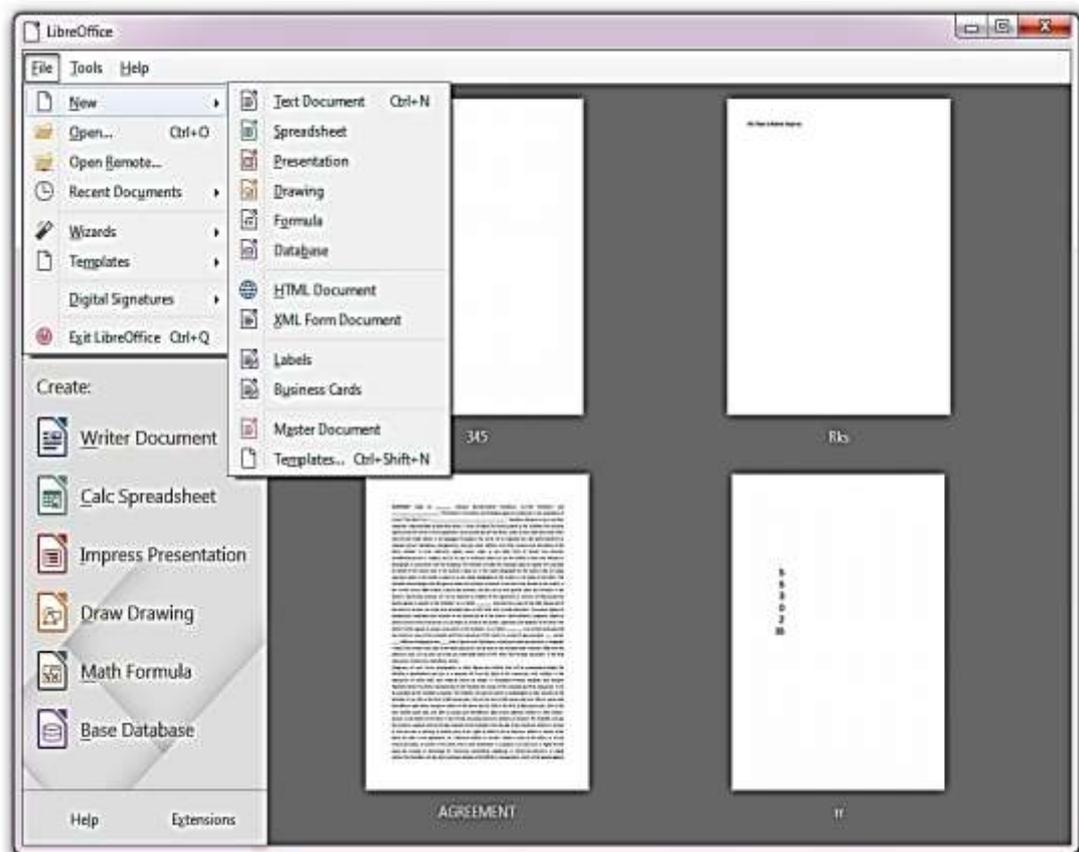
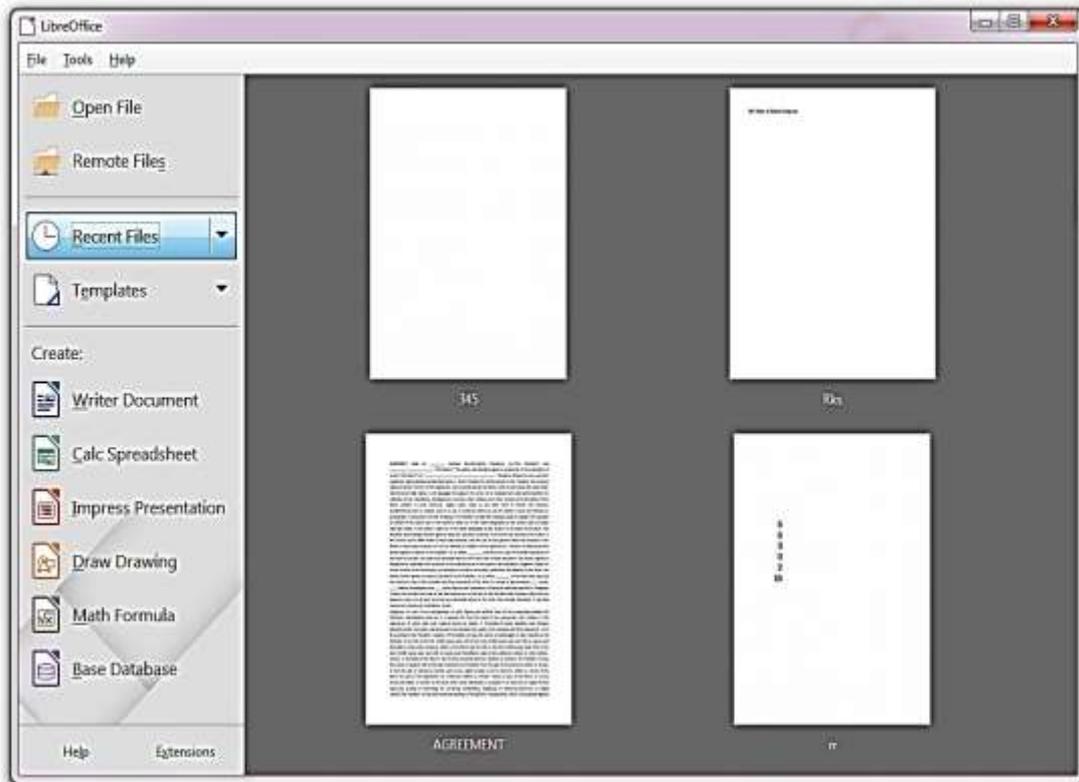
## Derivatives

- Collabora supplies branded and customized LibreOffice versions LibreOffice Vanilla for Mac, GovOffice, Collabora Office, Collabora Online Development Edition and Collabora Online.
- EuroOffice is a derivative of LibreOffice with free and non-free extensions developed by Hungarian-based MultiRacio Ltd.
- "LibreOffice powered by CIB" is a branded and customized version of LibreOffice developed by Germany-based CIB software GmbH.
- "NDC ODF Application Tools" is a derivative of LibreOffice provided by the Taiwan National Development Council (NDC) and used by public agencies in Taiwan.
- NeoOffice 2017 and later versions are based on LibreOffice. Previous versions included stability fixes from LibreOffice.
- OxOffice is a derivative of LibreOffice (originally a derivative of OpenOffice.org) with enhanced support for the Chinese language.

## Interface- LibreOffice

LibreOffice provides a common interface to all applications such as Writer (Word Processor), Calc (Spreadsheet), Impress (Presentation), Draw (Drawing), Math (Formulas), Base (Database). You can create a new Document, Spreadsheet, Presentation, database or drawing etc.

You can open any type of files by using Open Files or Recent Files commands. You can also access the Remote files which are store online (Google Drive, One Drive, Open Data Space etc.) If you want to access files remotely, you need an online account and password. You can open and create a templates for all its programs.



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## Lesson-2: Writer

LibreOffice Writer lets you design and produce text documents that can include graphics, tables, or charts. You can then save the documents in a variety of formats, including the standardized OpenDocument format (ODF), Microsoft Word .doc format, or HTML. And you can easily export your document to the Portable Document Format (PDF). LibreOffice Writer have following features:

### Writing

LibreOffice Writer lets you create both basic documents, such as memos, faxes, letters , resumes and merge documents, as well as long and complex or multi-part documents, complete with bibliographies, reference tables and indexes. LibreOffice Writer also includes such useful features as a spellchecker, a thesaurus, AutoCorrect, and hyphenation as well as a variety of templates for almost every purpose. You can also create your own templates using the wizards.

### Saving in Multiple file format

LibreOffice Writer supports multiple file format for saving and exporting a document. By Default, LibreOffice Writer uses OpenDocument format (ODF) but you can save your documents in multiple file formats. These formats can be as Text, Rich Text, Office Open XML Text, Word 2007-2019, Word 2007-2019 VBA, Word 2003 XML, Word 97-2003, DocBook, HTML Document, ODF Text Document template, Flat XML ODF Text Document, Unified Office Format Text and more.

### Designing and Structuring

LibreOffice offers a wide variety of options to design documents. Use the Styles window to create, assign and modify styles for paragraphs, individual characters, frames and pages. In addition, the Navigator helps you to quickly move around inside your documents, lets you look at your document in an outline view, and keeps track of the objects that you have inserted into your document.

You can also create various indexes and tables in text documents. You can define the structure and appearance of the indexes and tables according to your individual needs. Live hyperlinks and bookmarks let you jump directly to the corresponding items in the text.

### Desktop Publishing with LibreOffice Writer

LibreOffice Writer contains numerous desktop publishing and drawing tools to assist you in creating professionally styled documents, such as brochures, newsletters and invitations. You can format your documents with multi-column layouts, text frames, graphics, tables, and other objects.

### Calculations

Text documents in LibreOffice have an integrated calculation function that helps you execute sophisticated calculations or logical links. You can easily create a table in a text document in order to perform calculations.

### Creating Drawings

The LibreOffice Writer drawing tool lets you create drawings, graphics, legends, and other types of drawings directly in text documents.

## Inserting Graphics

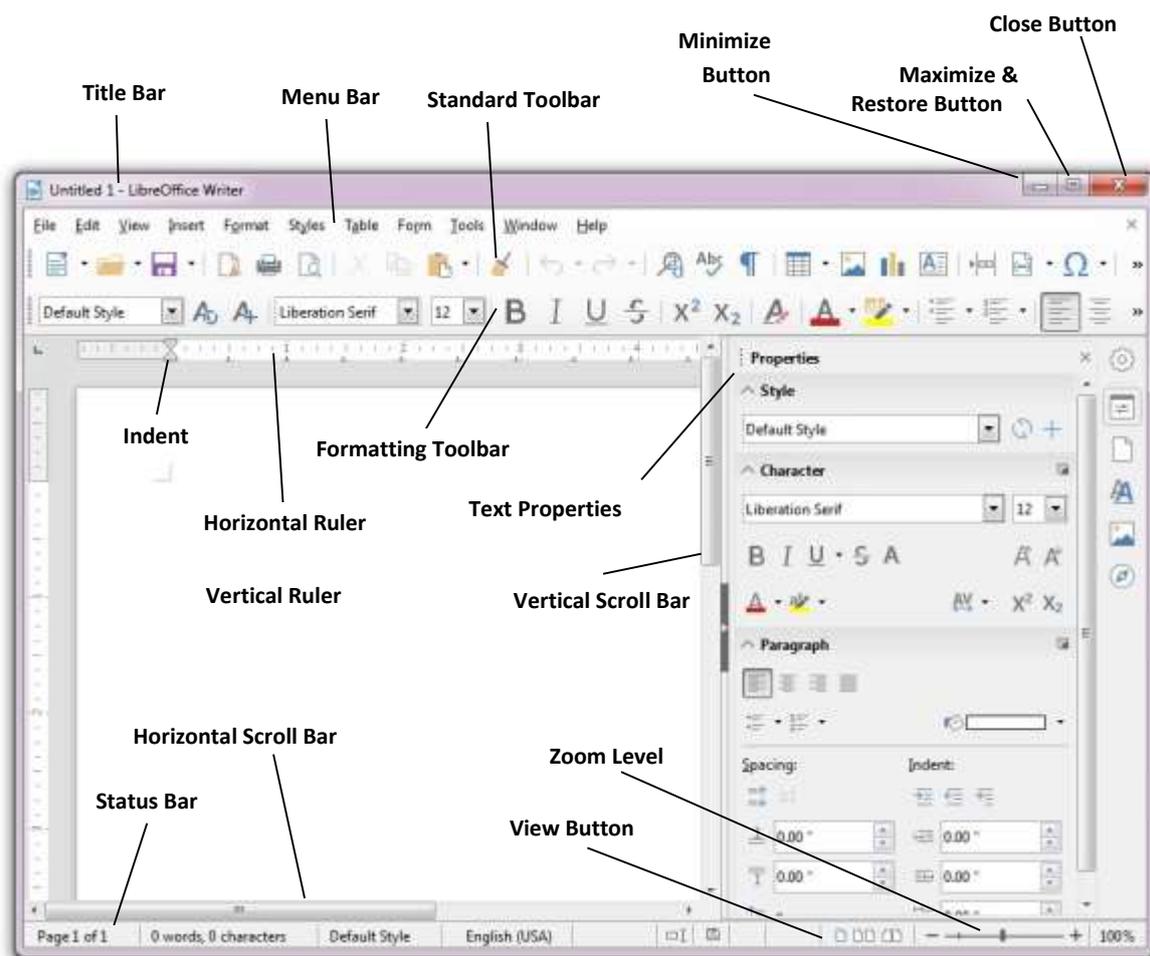
You can insert pictures with different formats into a text document, including graphics with a JPG or GIF format. In addition, the Gallery provides a collection of clipart graphics, and the Fontwork Gallery creates stunning font effects.

## Flexible Application Interface

The program interface is designed so that you can configure it according to your preferences, including customizing icons and menus. You can position various program windows, such as the Styles window or the Navigator as floating windows anywhere on the screen. You can also dock some windows to the edge of the workspace.

## Interface- Writer

LibreOffice writer interface is look like a Microsoft Word. All menu, toolbars and commands managed according to Microsoft Word. Command icons are also displays and arranged at toolbars. If you are familiar with Microsoft Word, you can easily operate and work in LibreOffice writer.



## Toolbars

LibreOffice Writer provides multiple Toolbars to create a document. Each Toolbars have multiple commands that is related a group or functions. Some important toolbar displays on the screen by default. You can use other toolbar through Toolbar command which is available on View menu. The Description of some important toolbar is as per given below:

- ❖ **Standard Bar:** The Standard bar is available in every LibreOffice application.

- ❖ **Formatting Bar:** The Formatting bar contains several formatting functions.
- ❖ **Drawing Bar:** The Drawing bar contains frequently editing tools. Click the arrow next to an icon to open toolbar that contains additional commands.
- ❖ **Image Bar:** The Image Bar contains functions for formatting and positioning selected bitmap graphics.
- ❖ **Frame Bar:** When a frame is selected, the Frame Bar provides the most important functions for formatting positioning the frame.
- ❖ **Table Bar:** The Table Bar contains functions you need working with tables. It appears when you move the cursor into a table.
- ❖ **Drawing Object Properties Bar:** You can see the Drawing Object Properties bar in Writer and Calc. the menu View - Toolbars - Drawing Object Properties. The controls are enabled when a drawing object is selected. You see some different icons by default, whether the current document is a text document or a spreadsheet.
- ❖ **Bullets and Numbering Bar:** The Bullets and Numbering bar contains functions to modify the structure of numbered paragraphs, including changing the order of paragraphs and defining different paragraph levels.
- ❖ **Text Object Bar:** Contains formatting commands for text that is contained in a draw object. The Text Object bar appears when you double-click inside a draw object.
- ❖ **Status Bar:** The Status Bar contains information about the current document and offers various buttons with special functions.
- ❖ **Print Preview:** The Print Preview Bar appears when you view the current document in the print preview mode.
- ❖ **Rulers:** Rulers display the dimensions of the page, and the position of tabs, indents, borders and columns. You can modify all of these on the rulers using the mouse.
- ❖ **Formula Bar:** The Formula Bar allows you to create and insert calculations into a text document. To activate the Formula Bar, press F2.
- ❖ **Insert:** The toolbar contains various functions for inserting frames, graphics, tables, and other objects.



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## Menu Bar

LibreOffice Writer's Menu Bar is situated below title bar. All commands are stored in Menu Bar. Each menu displays command related to some special group. For example, File menu displays operations conducted on file, insert menu displays objects and text to be inserted. Like this Page Layout menu displays the layout setting of the document.

### File

These commands apply to the current document, open a new document, or close the application.

### Edit

This menu contains commands for editing the contents of the current document.

**View**

This menu contains commands for controlling the on-screen display of the document.

**Insert**

The Insert menu contains commands for inserting new elements in your document. This includes images, media, charts, and objects from other applications, hyperlink, comments, symbols, footnotes, and sections.

**Format**

Contains commands for formatting the layout and the contents of your document.

**Styles**

Contains commands to apply, create, edit, update, load, and manage styles in a text document.

**Form**

Contains commands for activate form design mode, open control wizards and insert form controls in your text document.

**Table**

Shows commands to insert, edit, and delete a table and its elements inside a text document.

**Tools**

Contains spelling tools, a gallery of object art that you can add to your document, as well as tools for configuring menus, and setting program preferences.

**Window**

Contains commands for manipulating and displaying document windows.

**Help**

The Help menu allows you to start and control the LibreOffice Help system.

**FILE MENU**

The File menu's commands apply to the current document such as open a new document, Create a new document, save document, print document, close application, etc.

**New**

This Command is used to create a new LibreOffice document. You can use Ctrl+N Shortcut key to create a new document or Ctrl+Shift+N to create a new template.

**Open**

This Command is used to opens a local or remote file, or imports one. You can use Ctrl+O Shortcut key to display open dialog box.

### Open Remote...

This Command is used to opens a document located in a remote service.

### Recent Documents

This Command is used to lists the most recently opened files. To a file in the list, click its name.

### Close

This Command is used to closes the current document without exiting the program.

### Wizards

This Command is used to guides you through creating bus iness personal letters, faxes, agendas, presentations, and more.

### Templates

This Command is used to organize and edit your templates, as as save the current file as a template.

### Reload

This Command is used to replaces the current document with the saved version.

### Versions

This Command is used to Saves and organizes multiple versions current document in the same file. You can also open, delete and compare previous versions.

### Save

This Command is used to Saves the current document. You can Ctrl+S Shortcut key to save your document. Save Remote Command is used to Saves a document located in a remote file service.

### Save As

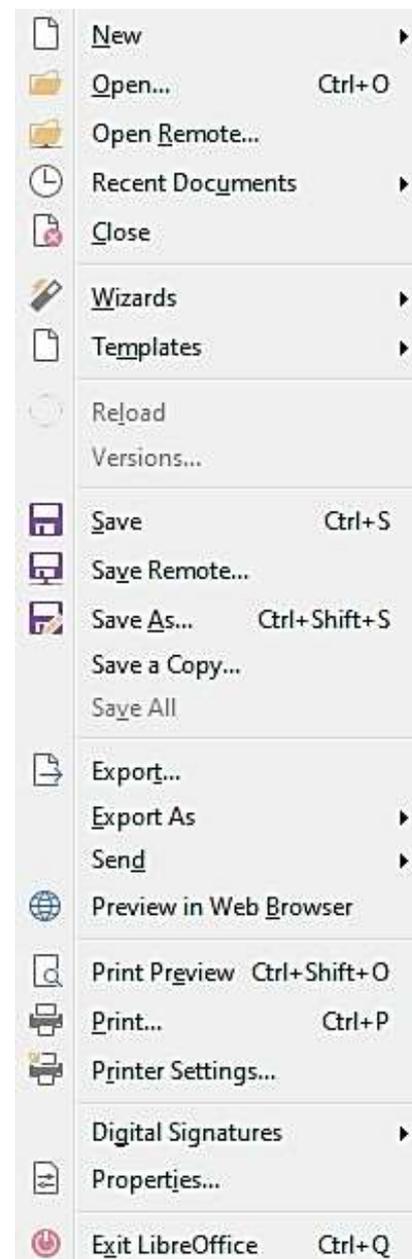
This Command is used to Saves the current document in a different location, or with a different file name or file type. You can use Ctrl+Shift+S Shortcut key to save your document. Save All Command is used to Saves all modified LibreOffice documents.

### Save a Copy

This Command is used to Saves a copy of the actual document with another name or location.

### Export

This Command is used to Saves the current document with a different name and format to a location that you specify.



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**Export As...**

This Command is used to Export the document in PDF or EPUB formats.

**Send**

This Command is used to Sends a copy of the current document to different applications.

**Preview in Web Browser**

This Command is used to Creates a temporary copy of the current document in HTML format, opens the system default Web browser, and displays the HTML file in the Web browser.

**Print Preview**

This Command is used to Displays a preview of the printed page or closes the preview. You can use Ctrl+Shift+O Shortcut key for this command.

**Print**

This Command is used to Prints the current document, selection, or the pages that you specify. You can also set the print options for the current document. The printing options can vary according to the printer and the operating system that you use. You can use Ctrl+P Shortcut key to print document.

**Printer Settings**

This Command is used to Select the default printer for the current document.

**Document Properties**

This Command is used to Displays the properties for the current file, including statistics such as word count and the date the file was created.

**Digital Signatures**

This Command is used to Adds and removes digital signatures to and from your document. You can also use the dialog to view certificates.

**Exit**

This Command is used to Closes all LibreOffice programs and prompts you to save your changes. This command does not exist on macOS systems. You can use Ctrl+Q Shortcut key for this command.

**EDIT MENU**

This menu contains commands for editing the contents of the current document.

**Undo**

Reverses the last command or the last entry you typed. To select the command that you want to reverse, click the arrow next to the Undo icon on the Standard bar. You can use shortcut key (Ctrl+Z) for this command.

**Redo**

Reverses the action of the last Undo command. To select the Undo step you want to reverse, click the arrow next to the Redo icon on the Standard bar. You can use shortcut key (Ctrl+Y) for this command.

**Repeat**

Repeats the last command. This command is available in Writer and You can use shortcut key (Ctrl+Shift+Y) for this command.

**Cut**

Removes and copies the selection to the clipboard. You can use shortcut key (Ctrl+X) for this command.

**Copy**

Copies the selection to the clipboard. You can use shortcut key (Ctrl+C) this command.

**Paste**

Inserts the contents of the clipboard at the location of the cursor, and replaces any selected text or objects. You can use shortcut key (Ctrl+V) this command.

**Paste Special**

Inserts the contents of the clipboard into the current file in a format you can specify. You can use shortcut key (Ctrl+Shift+V) to paste Special shortcut key (Ctrl+Alt+Shift+V) to paste unformatted text.

**Select All**

Selects the entire content of the current file, frame, or text object. You can use shortcut key (Ctrl+A) for this command.

**Selection Mode**

Choose the selection mode from the submenu: normal selection mode, or block selection mode. You can use shortcut key (Alt+Shift+F8) to block area in selection mode.

**Select Text**

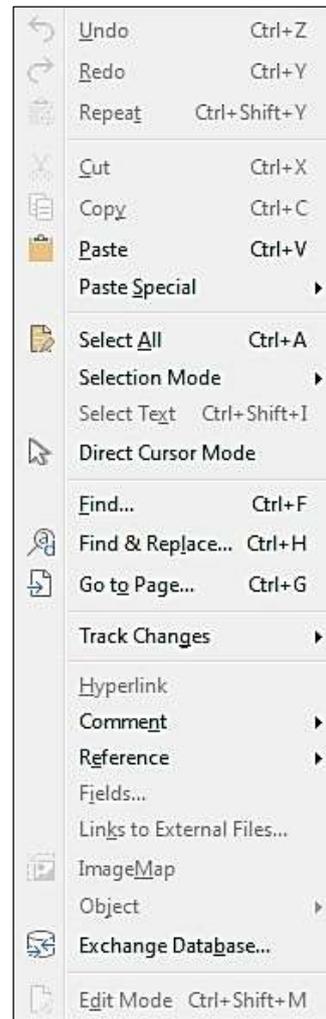
You can enable a selection cursor in a read-only text document or in the Help. Choose Edit - Select Text or open the context menu of a read-only document and choose Select Text. The selection cursor does not blink. You can use shortcut key (Ctrl+Shift+I) for this command.

**Direct Cursor Mode**

Allows a user to click at the beginning, middle, or end of any possible text line on a page and then begin typing.

**Find**

Toggle the visibility of the Find toolbar to search for text or navigate a document by element. You can use shortcut key (Ctrl+F) for this command.



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**Find & Replace**

Finds or replaces text or formats in the current document. You can use shortcut key (Ctrl+H) for this command.

**Go to Page**

Opens the Navigator window on the Page Number spin button, so you can enter in a page number. You can use shortcut key (Ctrl+G) for this command.

**Track Changes**

Lists the commands that are available for tracking changes in your file.

**Hyperlink**

Opens a dialog that enables you to create and edit hyperlinks.

**Footnote or Endnote**

Edits the selected footnote or endnote anchor. Click in front of the footnote or endnote, and then choose this command.

**Index Entry**

Edits the selected index entry. Click in front of or in the index entry, and then choose this command.

**Bibliography Entry**

Edits the selected bibliography entry.

**Fields**

Opens a dialog where you can edit the properties of a field. Click in front of a field, and then choose this command. In the dialog, you can use the arrow buttons to move to the previous or the next field.

**Links**

Lets you edit the properties of each link in the current document, including the path to the source file. This command is not available if the current document does not contain links to other files.

**Image Map**

Allows you to attach URLs to specific areas, called hotspots, on a graphic or a group of graphics. An image map is a group of one or more hotspots.

**Object**

Lets you edit a selected object in your file that you inserted with the Insert - Object command.

**Exchange Database**

Change the data sources for the current document. To correctly display the contents of inserted fields, the replacement database must contain identical field names.

**Edit File**

Use the Edit File icon to activate or deactivate the edit mode.

## VIEW MENU

This menu contains commands for controlling the on-screen display of the document.

### Normal

Displays how the document will look when you print it.

### Web

Displays the document as it would be viewed in a Web browser. This is useful when you create HTML documents.

### Toolbars

Opens a submenu to show and hide toolbars. A toolbar contains icons and options that let you quickly access LibreOffice commands.

### Status Bar

Shows or hides the Status bar at the bottom edge of the window.

### Rulers

Contains a submenu for showing or hiding the horizontal and vertical rulers. You can use shortcut key (Ctrl+Shift+R) to show and hide

### Scrollbars

Show or hide the horizontal and vertical scroll bars that are used to change the viewable area of a document that doesn't fit within the window.

### Text Boundaries

Shows or hides the boundaries of the printable area of a page. The boundary lines are not printed.

### Table Boundaries

Shows or hides the borders of table cells that have no set borders. The boundaries are only visible on screen and are not printed.

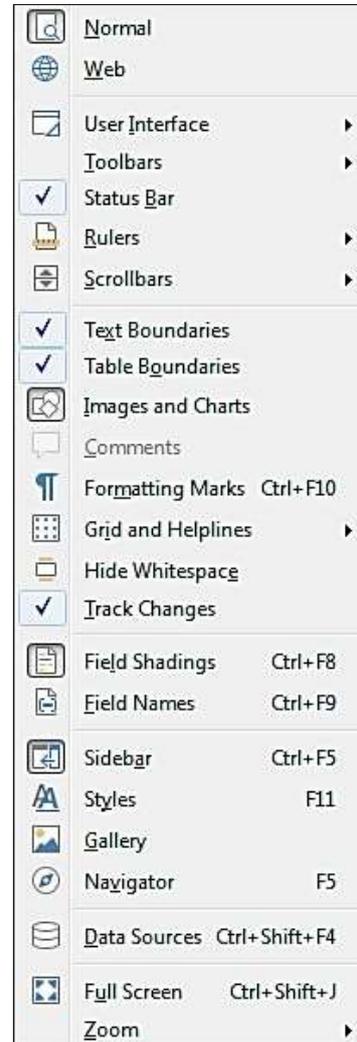
### Images and Charts

Show or hide graphical objects like images and charts within a document.

### Comments

Show or hide a document's comments and replies to them.

### Formatting Marks



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Shows hidden formatting symbols in your text, such as paragraph marks, line breaks, tab stops, and spaces. You can use shortcut key (Ctrl+F10) for this command.

### **Grid and Help Lines**

Toggle the visibility of grid points and guide lines to help object moving and precise position in the current sheet.

### **Hide Whitespace**

View documents with the white space found at the end and beginning of pages hidden.

### **Track Changes**

Shows or hides recorded changes.

### **Field Shadings**

Shows or hides shadings around fields in your document like non-breaking spaces, soft hyphens, indexes, and footnotes. You can use shortcut key (Ctrl+F8) for this command.

### **Field Names**

Switches between showing fields as field names or field values. When enabled the field names are displayed, and when disabled the field values displayed. Some field contents cannot be displayed. You can use shortcut key (Ctrl+F9) for this command.

### **Sidebar**

The Sidebar is a vertical graphical user interface that primarily provides contextual properties, style management, document navigation, and media gallery features. You can use shortcut key (Ctrl+F5) for this command.

### **Styles**

Use the Styles deck of the Sidebar to apply, create, edit, and remove formatting styles. Double-click an entry to apply the style. You can use shortcut key (F11) for this command.

### **Gallery**

Opens the Gallery deck of the Sidebar, where you can select images and audio clips to insert into your document.

### **Navigator**

Shows or hides the Navigator window, where you can quickly jump to different parts of your document. Navigator is also available as a deck of the Sidebar. You can also use the Navigator to insert elements from the current document or other open documents, and to organize master documents. To edit an item in the Navigator, right-click the item, and then choose a command from the context menu. If you want, you can dock the Navigator at the edge of your workspace. You can use shortcut key (F5) for this command.

### **Data Sources**

Lists the databases that are registered in LibreOffice and lets you manage the contents of the databases. You can use shortcut key (Ctrl+Shift+F4) for this command.

## Full Screen

Shows or hides the menus and toolbars in Writer or Calc. To exit the full screen mode, click the Full Screen button or press the Esc key. You can use shortcut key (Ctrl+Shift+J) for this command.

## INSERT MENU

The Insert menu contains commands for inserting new elements in your document. This includes images, media, charts and objects from other applications, hyperlink, comments, symbols, footnotes, and sections.

### Page Break

Inserts a manual page break at the current cursor position and places the cursor at the beginning of the next page. You can use shortcut key (Ctrl+Enter) for this command.

### Manual Break

Inserts a manual line break, column break or a page break at the current cursor position.

### Image

Inserts an image into the current document with optimal page wrapping centered on the line.

### Media

The submenu presents various sources that an image, audio or video can insert from.

### Chart

Inserts a chart based on data or table range or with default data.

### Object

Inserts an embedded object into your document, including formulas, 3D models, charts and OLE objects.

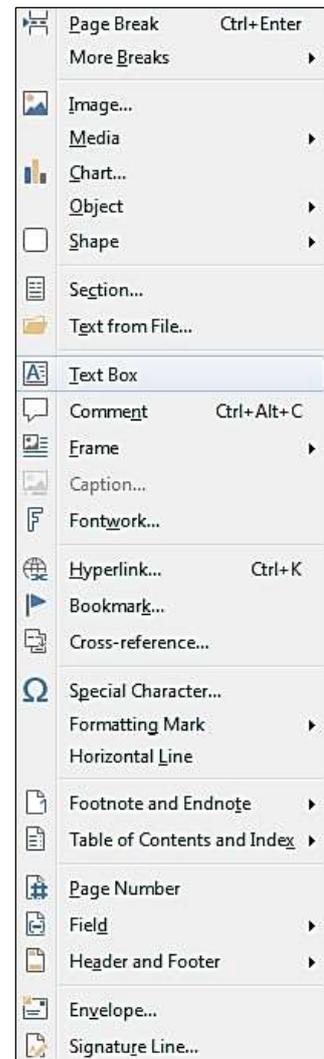
### Shape

This submenu contains common shapes like a line, circle, triangle, and square, or a symbol shape like a smiley face, heart, and flower that can be inserted into the document.

### Fontwork

Opens the Fontwork dialog from which you can insert styled text not possible through standard font formatting into your document.

### Textbox



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Draws a text box with horizontal text direction where you drag in the current document. Drag a text box to the size you want anywhere in the document, and then type or paste your text. Rotate the text box to get rotated text.

### **Comment**

Inserts a comment around the selected text or at the current cursor position. You can use shortcut key (Ctrl+Alt+C) for this command.

### **Frame**

This submenu contains both interactive and non-interactive means of inserting a frame.

### **Caption**

Adds a numbered caption to a selected image, table, chart, frame, or shape. You can also access this command by right-clicking the item that you want to add the caption to.

### **Hyperlink**

Opens a dialog that enables you to create and edit hyperlinks. You can use shortcut key (Ctrl+K) for this command.

### **Bookmark**

Inserts a bookmark at the cursor position. You can then use the Navigator to quickly jump to the marked location at a later time. In an HTML document, bookmarks are converted to anchors that you can jump to from a hyperlink.

### **Cross-references**

This is where you insert the references or referenced fields into the current document. References are referenced fields within the same document or within sub-documents of a master document.

### **Special Character**

Allows a user to insert characters from the range of symbols found in the installed fonts.

### **Formatting Mark**

Opens a submenu to insert special formatting marks like non-breaking space, soft hyphen, and optional break.

### **Horizontal Line**

Inserts a horizontal line at the current cursor position.

### **Footnote and Endnote**

The menu contains commands to insert a footnote or endnote with or without additional user interaction.

### **Table of Contents and Index**

Opens a menu to insert an index or bibliography entry, as well as inserting a table of contents, index, and or bibliography.

### **Page Number**

Inserts the current page number as a field at the cursor position. The default setting is for it to use the Page Number character style.

### **Fields**

The submenu lists the most common field types that can be inserted into a document at the current cursor position. To view all of the available fields, choose More Fields.

### **Header and Footer**

This submenu includes commands to add and remove page headers and footers.

### **Section**

Inserts a text section at the cursor position in the document. You can also select a block of text and then choose this command to create a section. You can use sections to insert blocks of text from other documents, to apply custom column layouts, or to protect or to hide blocks of text if a condition is met.

### **Envelope**

Creates an envelope. On three tab pages, you can specify the addressee and sender, the position and format for both addresses, the size of the envelope, and the envelope orientation.

### **Document**

Inserts the contents of another document into the current document at the cursor position.

### **Script**

Inserts a script at the current cursor position in an HTML or text document.

### **Form Control**

This submenu contains form controls like a textbox, checkbox, option button, and list box that can be inserted into the document.

## **FORMAT MENU**

Contains commands for formatting the layout and the contents of your document.

### **Text**

You can format the selected text as per your requirement. You can format the text as bold (Ctrl+B), Italic (Ctrl+I), Underline (Ctrl+U), Double underline (Ctrl+D), Superscript (Ctrl+Shift+P), Subscript (Ctrl+Shift+B), Change Case (Shift+F3), etc.

### **Spacing**

This command is used to set the line spacing in selected text or paragraph.

### Align

This command is used to align the selected text or paragraph. You can use Ctrl+L key to left align, key to right align, Ctrl+E key to center align and Ctrl+J justify.

### Lists

This command is used to create a bulleted or numbered list.

### Clear Direct Formatting

Removes direct formatting and formatting by character styles from the selection.

### Character

Changes the font and the font formatting for the selected characters.

### Paragraph

Modifies the format of the current paragraph, such as indents and alignment.

### Bullets and Numbering

Adds numbering or bullets to the current paragraph, and lets you edit format of the numbering or bullets.

### Page

Specify the formatting styles and the layout for the current page style, including page margins, headers and footers, and the page background.

### Columns

Specifies the number of columns and the column layout for a page style, frame, or section.

### Image

Formats the size, position, and other properties of the selected image.

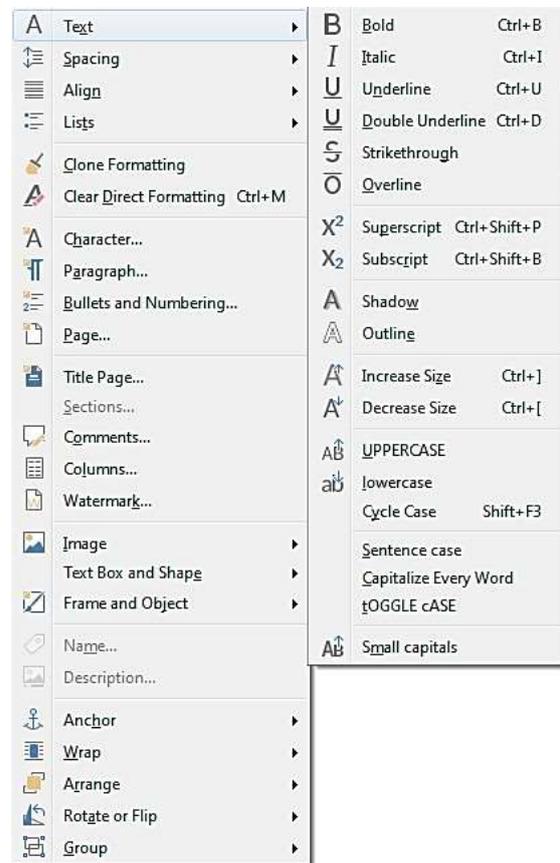
### Frame and Object

Inserts a frame that you can use to create a layout of one or more columns of text and objects.

### Anchor

Sets the anchoring options for the selected object.

### Wrap



Ctrl+R key to

Specify the way you want text to wrap around an object. You can also specify the spacing between the text and the object.

### Arrange

Changes the stacking order of the selected object(s).

### Flip

Flips the selected object horizontally, or vertically.

### Group

Groups keep together selected objects, so that they can be moved or formatted as a single object.

## STYLE MENU

Contains commands to apply, create, edit, update, load, and manage styles in a text document.

### Edit Style

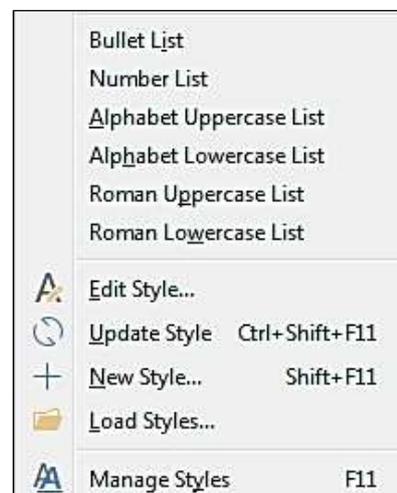
Opens the Paragraph Style dialog box of the current paragraph.

### Update Style

Update the paragraph style with the direct formatting applied to current paragraph. You can use shortcut key (Ctrl+Shift+F11) for command.

### New style

Adds a paragraph style with the settings of the current selection. will be prompted to enter the style name. You can use shortcut (Shift+F11) for this command.



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### Load Styles

Import styles from another document or template into the current document.

### Manage Styles

Opens the Styles deck in the sidebar. You can use shortcut key (F11) for this command.

## TABLE MENU

Shows commands to insert, edit, and delete a table and its elements inside a text document.

### Insert Table

This command is used to insert a new table. You can use Ctrl+F12 shortcut key for this command.

### Insert

This command is used to insert a row or columns in a table.

## UPCISS

### Delete

This command is used to delete row, columns or current table.

### Select

This command is used to select row, columns or current table.

### Merge Cells

Combines the contents of the selected table cells into a single cell.

### Split Cells

Splits the cell or group of cells horizontally or vertically into the number of cells that you enter.

### Merge Table

Combines two consecutive tables into a single table. The tables be directly next to each other and not separated by an empty paragraph.

### Split Table

Splits the current table into two separate tables at the cursor position. You can also access this command by right-clicking in a table cell.

### Table AutoFormat

Automatically applies formats to the current table, including fonts, shading, and borders.

### Repeat Heading Rows

Repeats the table headers on subsequent pages if the table spans one or more pages.

### Convert

This command is used to convert Text to Table and Table to Text

### Sort

Sorts the selected paragraphs or table rows alphabetically or numerically. You can define up to three sort keys as well as combine alphanumeric and numeric sort keys.

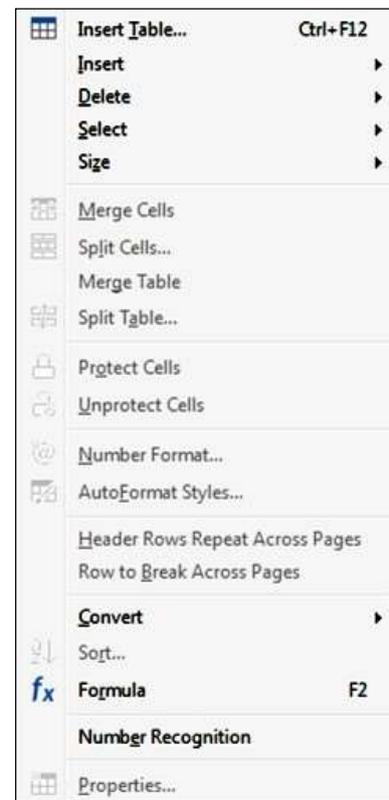
### Formula

Opens the Formula bar to enter or edit a formula. You can use F2 function key for this command.

### Number Format

Opens a dialog where you can specify the format of numbers in the table.

### Table Properties



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Specifies the properties of the selected table, for example, name, alignment, spacing, column width, borders, and background.

## FORM MENU

Contains commands for activate form design mode, open control wizards and insert form controls in your text document.

### Design Mode

Enable or disable form design mode.

### Control Wizards

Enable or disable control wizards.

### Label Field

Adds a field for displaying text labels. These labels are only for displaying predefined text, and not for entering text.

### Text Box

Adds an input box where you can enter and edit text.

### Check Box

Adds a check box that you can use to turn a function on or off.

### Option Button

Adds a button that allows a user to select from a number of options. Grouped option buttons must have consecutive tab indices. They are commonly encircled by a group box. If you have two groups of option buttons, you must insert a tab index between the tab indices of the two groups on the group frame.

### Combo Box

Adds a combo box. A combo box is a one line list box that a user can click, and then choose an entry from the list. If you want, you can make the entries in the combo box "read only".

### Button

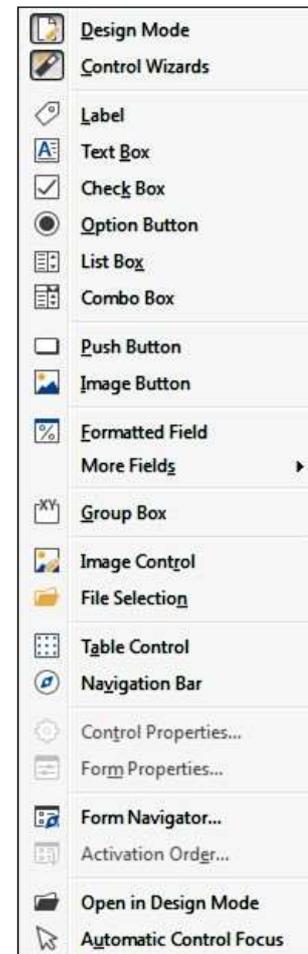
Adds a command button. You can use a command button to execute a command for a defined event, such as a mouse click. If you want, you can add text or a graphic to the button.

### Formatted Field

Adds a text box where you can define the formatting for text that is inputted or outputted as well as any limiting values.

### More fields

Date, time, numerical, currency and pattern form fields.



**Group Box**

Adds a frame that you can use to visually group similar controls, such as option buttons.

**File Selection**

Adds a button that opens a file selection dialog.

**Control Properties**

Opens a dialog for editing the properties of a selected control.

**Form Properties**

In this dialog you can specify, among others, the data source and the events for the whole form.

**Form Navigator**

Opens the Form Navigator. The Form Navigator displays all forms and subforms of the current document with their respective controls.

**Tab order**

When a form is selected, it opens the Tab Order dialog, where the indices for focusing the control elements on the Tab key are defined.

**Open in Design Mode**

Opens forms in Design Mode so that the form can be edited.

**Automatic Control Focus**

Enable or disable Automatic Control Focus

**TOOLS MENU**

Contains spelling tools, a gallery of object art that you can add to your document, as well as tools for configuring menus, and setting program preferences.

**Spellcheck**

Checks spelling manually. You can also use F7 Function Key for this command

**Language**

Opens a submenu where you can choose language specific commands.

**Word Count**

Counts the words and characters, with or without spaces, in the current selection and in the whole document. The count is kept up to date as you type or change the selection.

**AutoCorrect Options**

Sets the options for automatically replacing text as you type.

**AutoText**

Creates, edits, or inserts AutoText. You can store formatted text with graphics, tables, and fields as AutoText. To quickly AutoText, type the shortcut for the AutoText in your document, and then press Ctrl+F3.

### Chapter Numbering

Specifies the number format and the hierarchy for chapter numbering in the current document.

### Line Numbering

Adds or removes and formats line numbers in the current document. To exclude a paragraph from line numbering, click paragraph, choose Format - Paragraph, click the Numbering and then clear the Include this paragraph in line numbering box.

### Footnotes and Endnotes

Specifies the display settings for footnotes and endnotes.

### Bibliography Database

Insert, delete, edit, and organize records in the bibliography database.

### Mail Merge Wizard

Starts the Mail Merge Wizard to create form letters or send e-mail messages to many recipients.

### Update

Updates items in the current document that have dynamic contents, so as fields and indexes.

### Sort

Sorts the selected paragraphs or table rows alphabetically or numerically. You can define up to three sort keys as well as combine alphanumeric and numeric sort keys.

### Calculate

Calculates the selected formula and copies the result to the clipboard. You can also use Ctrl++ Shortcut Key for this command.

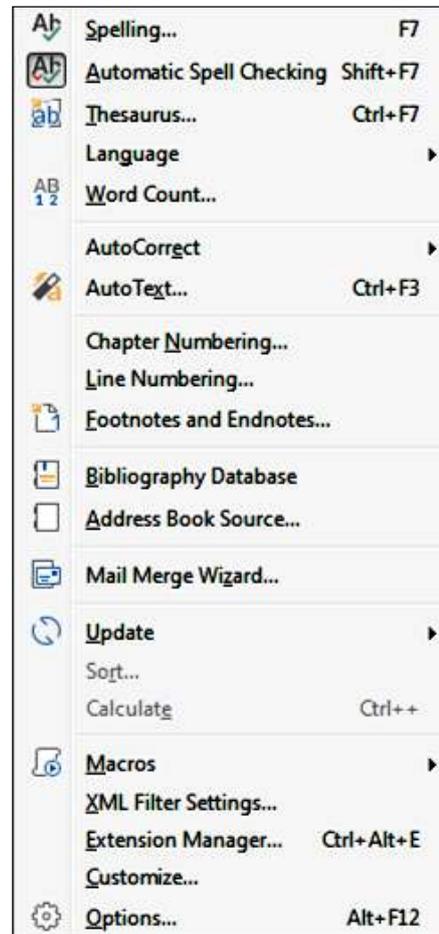
### Macros

Lets you record or organize and edit macros.

### XML Filter Settings

Opens the XML Filter Settings dialog, where you can create, edit, delete, and test filters to import and to export XML files.

### Extension Manager



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The Extension Manager adds, removes, disables, enables, and updates LibreOffice extensions. You can also use Ctrl+Alt+E Shortcut Key for this command.

### Customize

Customizes LibreOffice menus, context menus, shortcut keys, toolbars, and macro assignments to events.

### Options

This command opens a dialog for a customized program configuration. You can also use Alt+F12 Shortcut Key for this command.

## WINDOW MENU

Contains commands for manipulating and displaying document windows.

### New Window

Opens a new window that displays the contents of the current window. You can now view different parts of the same document at the same time.



### Close Window

Closes the current window. Choose Window - Close Window, or press Ctrl+F4. In the print preview of LibreOffice Writer and Calc, you can close the current window by clicking the Close Preview button.

### Document List

Lists the currently open documents. Select the name of a document in the list to switch to that document.

## HELP MENU

The Help menu allows you to start and control the LibreOffice Help system.

### LibreOffice Help

Opens the main page of the LibreOffice Help for the current application. You can scroll through the Help pages and you can search for index terms or any text. You can also use F1 function key for this command.

### What's this?

Enables extended help tips under the mouse pointer till the next click.

### User Guides

Opens the documentation page in the web browser, where users can download, read or purchase LibreOffice user guides, written by the community.

### Get Help Online

Opens the community support page in the web browser. Use this page to ask questions on using LibreOffice. For professional support with service level agreement, refer to the page of professional LibreOffice support.

### Send Feedback

Opens a feedback form in the web browser, where users can report software bugs.

### Restart in Safe Mode

Safe mode is a mode where LibreOffice temporarily starts with user profile and disables hardware acceleration. It helps to restore a non-working LibreOffice instance.

### License Information

Displays the Licensing and Legal information dialog.

### LibreOffice Credits

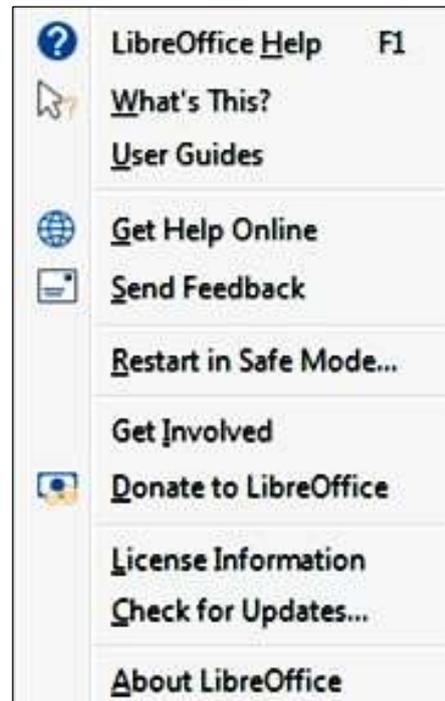
Displays the CREDITS.odt document which lists the names of individuals who have contributed to OpenOffice.org source (and whose contributions were imported into LibreOffice) or LibreOffice since 2010-09-28.

### Check for Updates

Enable an Internet connection for LibreOffice. If you need a Proxy, check the LibreOffice Proxy settings in Tools - Options - Internet. Then choose Check for Updates to check for the availability of a newer version of your office suite.

### About LibreOffice

Displays general program information such as version number and copyrights.



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## Lesson-3: Calc

LibreOffice Calc is a spreadsheet application that you can use to calculate, analyze, and manage your data. You can also import and modify Microsoft Excel spreadsheets.

### Calculations

LibreOffice Calc provides you with functions, including statistical and banking functions, that you can use to create formulas to perform complex calculations on your data. You can also use the Function Wizard to help you create your formulas.

### What-If Calculations

An interesting feature is to be able to immediately view the results of changes made to one factor of calculations that are composed of several factors. For instance, you can see how changing the time period in a loan calculation affects the interest rates or repayment amounts. Furthermore, you can manage larger tables by using different predefined scenarios.

### **Database Functions**

Use spreadsheets to arrange, store, and filter your data. LibreOffice Calc lets you drag-and-drop tables from databases, or lets you use a spreadsheet as a data source for creating form letters in LibreOffice Writer.

### **Arranging Data**

With a few mouse-clicks, you can reorganize your spreadsheet to show or hide certain data ranges, or to format ranges according to special conditions, or to quickly calculate subtotals and totals.

### **Dynamic Charts**

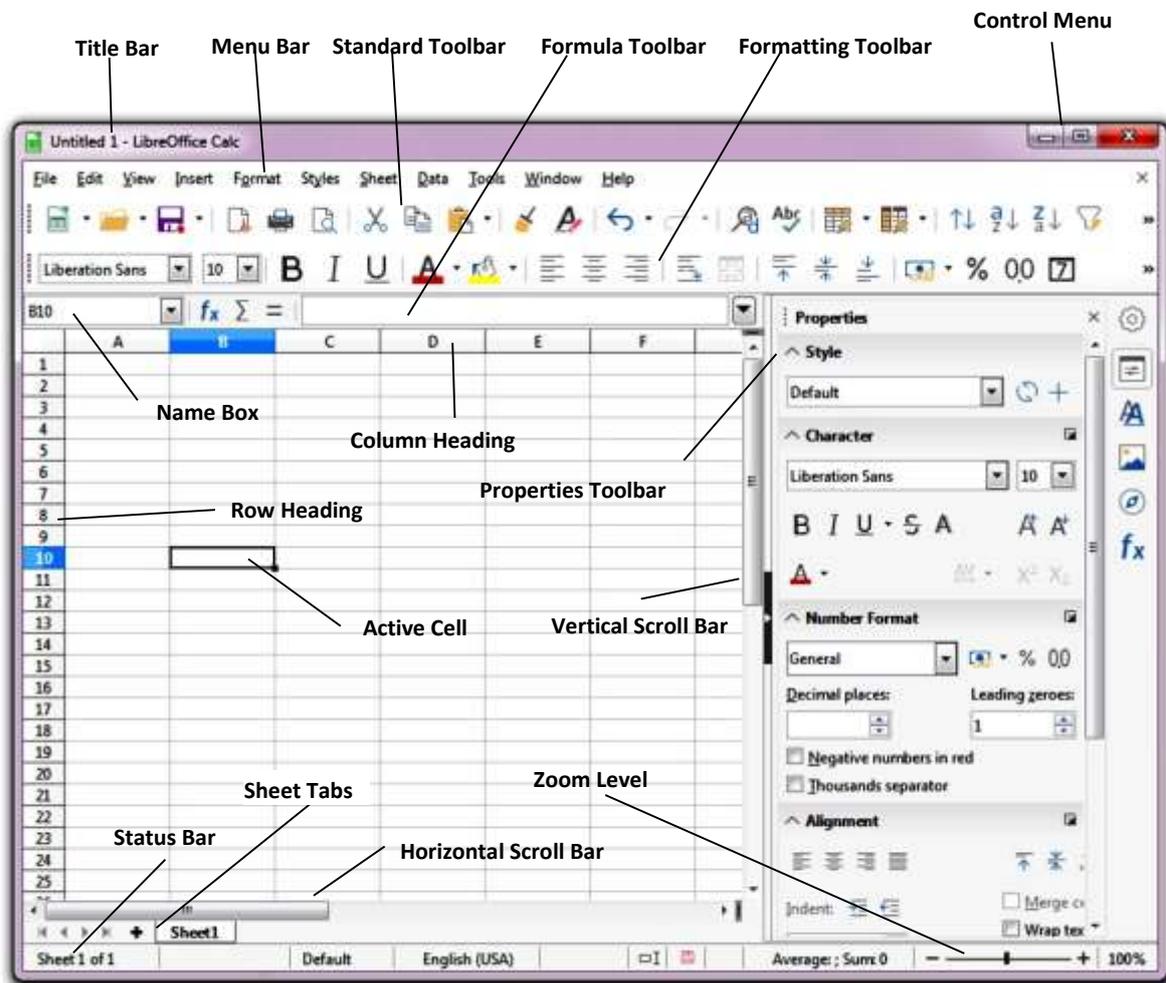
LibreOffice Calc lets you present spreadsheet data in dynamic charts that update automatically when the data changes.

### **Opening and Saving Microsoft Files**

Use the LibreOffice filters to convert Excel files, or to open and save in a variety of other formats.

### **Interface- Calc**

LibreOffice Calc interface is look like a Microsoft Excel. All menu, toolbars and commands managed according to Microsoft Excel. Command icons are also displays and arranged at toolbars. If you are familiar with Microsoft Excel, you can easily operate and work in LibreOffice Calc.



Electronic worksheet is made up of combination of row and column. LibreOffice Calc has below limits for number of rows, columns and cells that it can handle.

- Maximum number of **Columns** per worksheet = **1024** (Col A to AMJ).
- Maximum number of **Rows** per worksheet = **1048576** (1,2,3....)
- Maximum number of **cells** per worksheet = **1,073,741,824** ( $2^{30}$ ).
- Maximum number of **characters** in one cell = **32767**
- Maximum number of **worksheets** in a workbook = **10000**

### Cell and Active Cell

In the electronic worksheet, the rectangular figure made by intersection of row and column is called cell. This is the smallest unit of electronic worksheet in which data is stored. There is an address of every cell in the worksheet. The address of first cell is (A1) and of next cell is (B1). This address is very important because cell address is needed for calculation by formula. If in any cell more numeric data is typed than its size then we will have to increase the width of that cell. You can store text in a cell in more than one line. If a rectangle border is visible on a cell, it is called active cell. This rectangular border is called cell pointer. Any cell can be made active by clicking mouse or arrow key. In the picture given above, there is a border displayed around cell B10.

## Menus

The window containing the document you want to work on must be selected in order to use the menu commands. Similarly, you must select an object in the document to use the menu commands associated with the object. The following menu commands are available for spreadsheets.



### File

These commands apply to the current document, open a new document, or close the application.

### Edit

This menu contains commands for editing the contents of the current document.

### View

This menu contains commands for controlling the on-screen display of the document.

### Insert

The Insert menu contains commands for inserting new elements, such as cells, rows, sheets and cell names into the current sheet.

### Format

The Format menu contains commands for formatting selected cells, objects, and cell contents in your document.

### Sheet

This menu contains commands to modify and manage a sheet and its elements.

### Data

Use the Data menu commands to edit the data in the current sheet. You can define ranges, sort and filter the data, calculate results, outline data, and create a pivot table.

### Tools

The Tools menu contains commands to check spelling, to trace sheet references, to find mistakes and to define scenarios.

### Window

Contains commands for manipulating and displaying document windows.

### Help

The Help menu allows you to start and control the LibreOffice Help system.

## FILE MENU

These commands apply to the current document, open a new document, or close the application.

### New

Creates a new LibreOffice document. You can use Shortcut key (Ctrl+N) create a new spreadsheet. If you are creating a new template, then use Shortcut key (Ctrl+Shift+N).

### Open

Opens a local or remote file, or imports one. You can use Shortcut key (Ctrl+O) for this command.

### Recent Documents

Lists the most recently opened files. To open a file in the list, click its name.

### Close

Closes the current document without exiting the program.

### Wizards

Guides you through creating business and personal letters, faxes, agendas, presentations, and more.

### Templates

Lets you organize and edit your templates, as well as save the current a template.

### Reload

Replaces the current document with the last saved version.

### Versions

Saves and organizes multiple versions of the current document in the same file. You can also open, delete and compare previous versions.

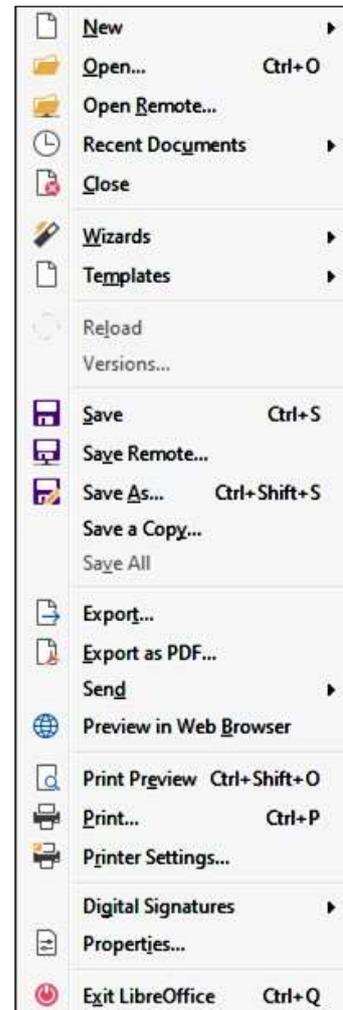
### Save

Saves the current document. You can use Shortcut key (Ctrl+S) for this command.

### Save As

Saves the current document in a different location, or with a different file name or file type. You can use Shortcut key (Ctrl+Shift+S) for this command.

### Save All



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Saves all modified LibreOffice documents.

### **Export**

Saves the current document with a different name and format to a location that you specify.

### **Export as PDF**

Saves the current file to Portable Document Format (PDF) version 1.4. A PDF file can be viewed and printed on any platform with the original formatting intact, provided that supporting software is installed.

### **Send**

Sends a copy of the current document to different applications.

### **Preview in Web Browser**

Creates a temporary copy of the current document in HTML format, opens the system default Web browser, and displays the HTML file in the Web browser.

### **Print Preview**

Displays a preview of the printed page or closes the preview. You can use Shortcut key (Ctrl+Shift+O) for this command.

### **Print**

Prints the current document, selection, or the pages that you specify. You can also set the print options for the current document. The printing options can vary according to the printer and the operating system that you use. You can use Shortcut key (Ctrl+P) for this command.

### **Printer Settings**

Select the default printer for the current document.

### **Document Properties**

Displays the properties for the current file, including statistics such as word count and the date the file was created.

### **Digital Signatures**

Adds and removes digital signatures to your document. You can also use the dialog to view certificates.

### **Exit**

Closes all LibreOffice programs and prompts you to save your changes. This command does not exist on macOS systems. You can use Shortcut key (Ctrl+Q) for this command.

## **EDIT MENU**

This menu contains commands for editing the contents of the current document.

### **Undo**

Reverses the last command or the last entry you typed. To select command that you want to reverse, click the arrow next to the icon on the Standard bar. You can use Shortcut key (Ctrl+Z) for this command.

**Redo**

Reverses the action of the last Undo command. To select the Undo that you want to reverse, click the arrow next to the Redo icon on Standard bar. ou can use Shortcut key (Ctrl+Y) for this command.

**Repeat**

Repeats the last command. This command is available in Writer and ou can use Shortcut key (Ctrl+Shift+Y) for this command.

**Cut**

Removes and copies the selection to the clipboard. You can use Shortcut key (Ctrl+X) for this command.

**Copy**

Copies the selection to the clipboard. You can use Shortcut key (Ctrl+C) for this command.

**Paste**

Inserts the contents of the clipboard at the location of the cursor, replaces any selected text or objects. You can use Shortcut key (Ctrl+V) for this command.

**Paste Special**

Inserts the contents of the clipboard into the current file in a format that you can specify.

**Select All**

Selects the entire content of the current file, frame, or text object. You can use Shortcut key (Ctrl+Shift+Space) for this command.

**Find**

Toggle the visibility of the Find toolbar to search for text or navigate a document by element. You can use Shortcut key (Ctrl+F) for this command.

**Find & Replace**

Finds or replaces text or formats in the current document. You can use Shortcut key (Ctrl+H) for this command.

**Track Changes**

Lists the commands that are available for tracking changes in your file.

**Links**



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Lets you edit the properties of each link in the current document, including the path to the source file. This command is not available if the current document does not contain links to other files.

**ImageMap**

Allows you to attach URLs to specific areas, called hotspots, on a graphic or a group of graphics. An image map is a group of one or more hotspots.

**Object**

Lets you edit a selected object in your file that you inserted with the Insert - Object command.

**Edit File**

Use the Edit File icon to activate or deactivate the edit mode. You can use Shortcut key (Ctrl+Shift+M) for this command.

**VIEW MENU**

This menu contains commands for controlling the on-screen display of the document.

**Normal**

Displays the normal layout view of the sheet.

**Page Break**

This command is used to insert a page break in your worksheet.

**Formula Bar**

Shows or hides the Formula Bar, which is used for entering and editing formulas. The Formula Bar is the most important tool working with spreadsheets.

**View Headers**

This command is used to Shows column headers and row headers.

**View Grid Lines**

Toggle the visibility of grid lines for the current sheet.

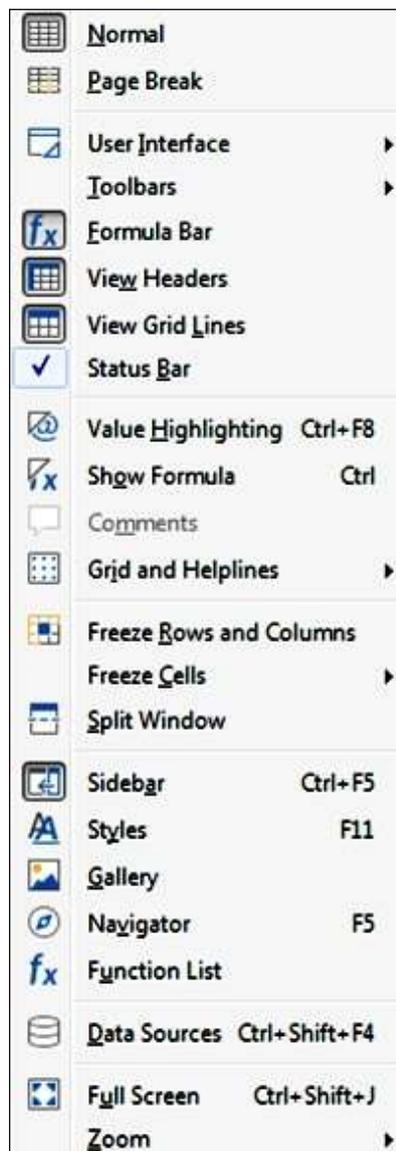
**Status Bar**

Shows or hides the Status bar at the bottom edge of the window.

**Value Highlighting**

Displays cell contents in different colors, depending on type. You use Shortcut key (Ctrl+F8) for this command.

**Show Formula**



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Display the cell formula expression instead of the calculated result. You can use Ctrl key to show formula of selected cell.

### **Grid and Help Lines**

Toggle the visibility of grid points and guide lines to help object moving and precise position in the current sheet.

### **Freeze Rows and Columns**

Divides the sheet at the top left corner of the active cell and the area to the top left is no longer scrollable.

### **Split Window**

Divides the current window at the top left corner of the active cell.

### **Sidebar**

The Sidebar is a vertical graphical user interface that primarily provides contextual properties, style management, document navigation, and media gallery features. You can use Shortcut key (Ctrl+F5) for this command.

### **Styles**

Use the Styles deck of the Sidebar to assign styles to cells and pages. You can apply, update, and modify existing styles or create new styles. You can use function key (F11) for this command.

### **Gallery**

Opens the Gallery deck of the Sidebar, where you can select images and audio clips to insert into your document.

### **Navigator**

Activates and deactivates the Navigator. The Navigator is a dockable window. You can use function key (F5) for this command.

### **Function List**

Opens the Function List deck of the Sidebar, which displays all functions that can be inserted into your document.

### **Data Sources**

Lists the databases that are registered in LibreOffice and lets you manage the contents of the databases. You can use Shortcut key (Ctrl+Shift+F4) for this command.

### **Full Screen**

Shows or hides the menus and toolbars in Writer or Calc. To exit the full screen mode, click the Full Screen button or press the Esc key. You can use Shortcut key (Ctrl+Shift+J) for this command.

### **Zoom**

Reduces or enlarges the screen display of LibreOffice.

## INSERT MENU

The Insert menu contains commands for inserting new elements, such as cells, rows, sheets and cell names into the current sheet.

### Media

The submenu presents various sources that an image, audio or video can insert from. You can Inserts a video or audio file into your document.

### Chart

This command is used to Inserts a chart in worksheet.

### Object

Inserts an embedded object into your document, including formulas, 3D models, charts and OLE objects.

### Special Character

Allows a user to insert characters from the range of symbols found in the installed fonts.

### Formatting Mark

Opens a submenu to insert special formatting marks like non-breaking soft hyphen, and optional break.

### Hyperlink

Opens a dialog that enables you to create and edit hyperlinks. You can use Shortcut key (Ctrl+K) for this command.

### Function

Opens the Function Wizard, which helps you to interactively create formulas. You can use Shortcut key (Ctrl+F2) for this command.

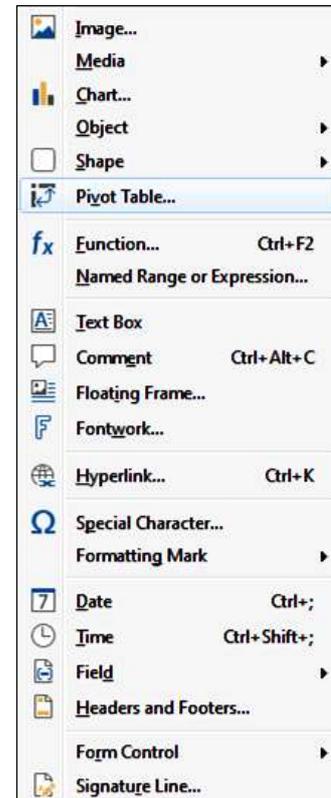
### Named Ranges and Expressions

Allows you to name the different sections of your spreadsheet document. By naming the different sections, you can easily navigate through the spreadsheet documents and find specific information.

### Comment

Inserts a comment around the selected text or at the current cursor position. You can use Shortcut key (Ctrl+Alt+C) for this command.

### Floating Frame



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Inserts a floating frame into the current document. Floating frames are used in HTML documents to display the contents of another file.

### Headers & Footers

Allows you to define and format headers and footers.

## FORMAT MENU

The Format menu contains commands for formatting selected cells, objects, and cell contents in your document.

### Clear Direct Formatting

Removes direct formatting and formatting by character styles from the selection.

### Cells

Allows you to specify a variety of formatting options and to apply attributes selected cells.

### Row

Sets the row height and hides or shows selected rows.

### Column

Sets the column width and hides or shows selected columns.

### Sheet

Sets the sheet name and hides or shows selected sheets.

### Merge and Center Cells

Combines the selected cells into a single cell or splits merged cells. Aligns content centered.

### Page

Opens a dialog where you can define the appearance of all pages in your document.

### Print Ranges

Manages print ranges. Only cells within the print ranges will be printed.

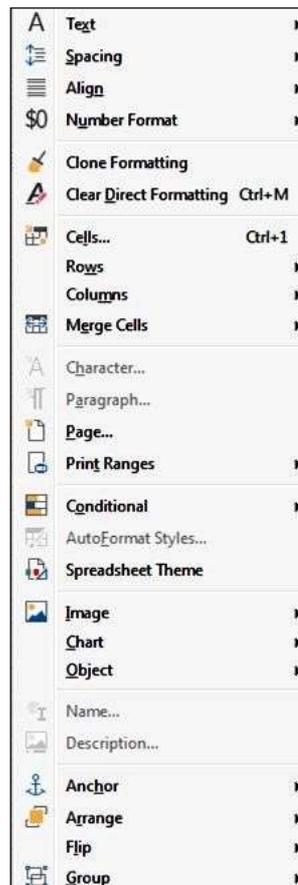
### Character

Changes the font and the font formatting for the selected characters.

### Paragraph

Modifies the format of the current paragraph, such as indents and alignment.

### Change Case



to the

cell

Changes the case of characters in the selection. If the cursor is within a word and no text is selected, then the word is the selection.

### **AutoFormat**

Use this command to apply an AutoFormat to a selected sheet area or to define your own AutoFormats.

### **Conditional Formatting**

Choose Conditional Formatting to define format styles depending on certain conditions.

### **Anchor**

Sets the anchoring options for the selected object.

### **Arrange**

Changes the stacking order of the selected object(s).

### **Flip**

Flips the selected object horizontally, or vertically.

### **Group**

Groups keep together selected objects, so that they can be moved or formatted as a single object.

## **SHEET MENU**

This menu contains commands to modify and manage a sheet and its elements.

### **Insert Rows**

Insert rows above or below the active cell.

### **Insert Columns**

Inserts columns to the left or to the right of the active cell.

### **Insert Page Break**

This command inserts manual row or column breaks to ensure that your data prints properly. You can insert a horizontal page break above, or a vertical page break to the left of, the active cell.

### **Delete Cells**

Completely deletes selected cells, columns or rows. The cells below or to right of the deleted cells will fill the space. Note that the selected delete option is stored and reloaded when the dialog is next called. You can use Shortcut key (Ctrl+-) for this command.

### Delete Page Break

Choose the type of page break that you want to delete.

### Fill

Automatically fills cells with content.

### Deleting Contents

Specifies the contents to be deleted from the active cell or from a selected cell range. If several sheets are selected, all selected sheets will be affected.

### Move or Copy Sheet

Moves or copies a sheet to a new location in the document or to a different document.

### Show Sheet

Displays sheets that were previously hidden with the Hide Sheets command.

### Delete Sheet

Deletes the current sheet after query confirmation.

### Sheet Tab Color

Opens a window where you can assign a color to the sheet tab.

### Sheet Events

Assigns macros to program events. The assigned macro runs automatically every time the selected event occurs.

## DATA MENU

Use the Data menu commands to edit the data in the current sheet. You can define ranges, sort and filter the data, calculate results, outline data, and create a pivot table.

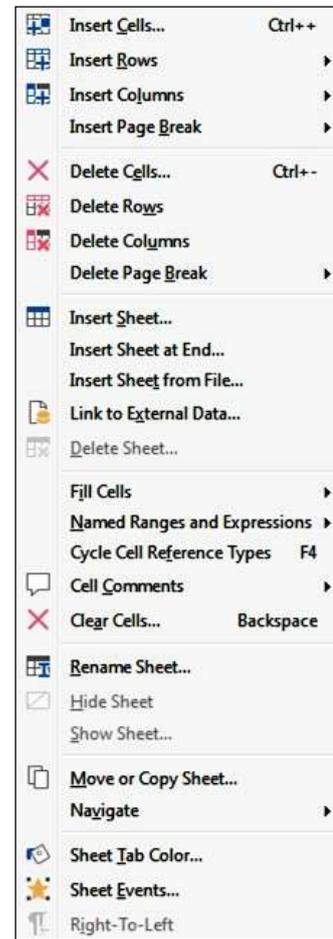
### Sort

Sorts the selected rows according to the conditions that you specify.

### Filter

Shows commands to filter your data.

### Define Range



the

be

Defines a database range based on the selected cells in your sheet.

### Select Range

Selects a database range that you defined under Data - Define Range.

### Refresh Range

Updates a data range that was inserted from an external database. The in the sheet is updated to match the data in the external database.

### Pivot Table

A pivot table provides a summary of large amounts of data. You can then rearrange the pivot table to view different summaries of the data.

### Subtotals

Calculates subtotals for the columns that you select.

### Validity

Defines what data is valid for a selected cell or cell range.

### Multiple Operations

Applies the same formula to different cells, but with different parameter

### Text to Columns

Opens the Text to Columns dialog, where you enter settings to expand contents of selected cells to multiple cells.

### Consolidate

Combines data from one or more independent cell ranges and calculates a new range using the function that you specify.

### Group and Outline

You can create an outline of your data and group rows and columns together so that you can collapse and expand the groups with a single click.

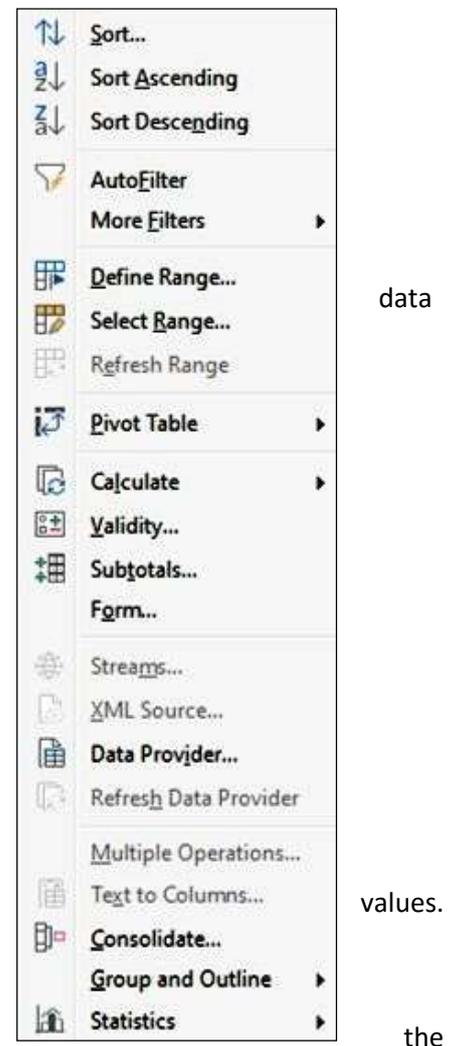
## TOOLS MENU

The Tools menu contains commands to check spelling, to trace sheet references, to find mistakes and to define scenarios. You can also create and assign macros and configure the look and feel of toolbars, menus, keyboard, and set the default options for LibreOffice applications.

### Spellcheck

Checks spelling manually. You can uses Function key (F7) for this command.

### Language



Opens a submenu where you can choose language specific commands.

### AutoCorrect Options

Sets the options for automatically replacing text as you type.

### Goal Seek

Opens a dialog where you can solve an equation with a variable.

### Solver

Opens the Solver dialog. A solver allows you to solve equations with multiple unknown variables by goal-seeking methods.

### Detective

This command activates the Spreadsheet Detective. With the Detective, you can trace the dependencies from the current cell to the cells in the spreadsheet.

### Scenarios

Defines a scenario for the selected sheet area.

### Protect Document

The Protect Sheet or Protect Spreadsheet Structure commands prevent changes from being made to cells in the sheets or to sheets in a document. As an option, you can define a password. If a password is defined, removal of the protection is only possible if the user enters the correct password.

### Macros

Lets you record or organize and edit macros.

### Extension Manager

The Extension Manager adds, removes, disables, enables, and updates LibreOffice extensions. You can use shortcut key (Ctrl+Alt+E) for this command.

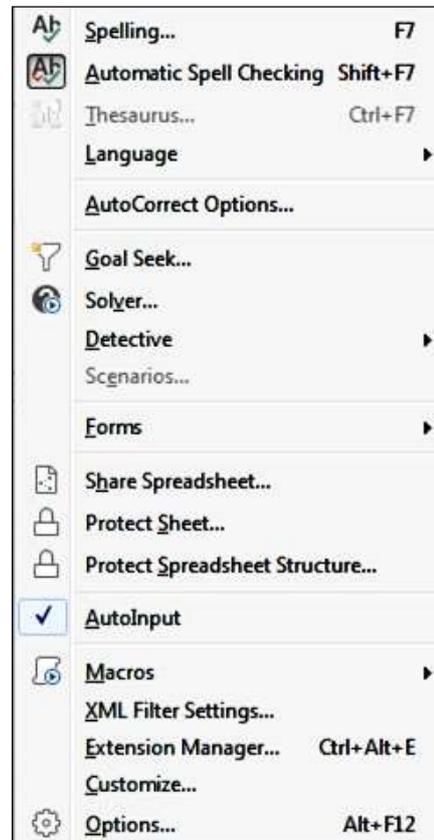
### XML Filter Settings

Opens the XML Filter Settings dialog, where you can create, edit, delete, and test filters to import and to export XML files.

### Customize

Customizes LibreOffice menus, context menus, shortcut keys, toolbars, and macro assignments to events.

### Options



formula

This command opens a dialog for a customized program configuration. You can use shortcut key (Alt+F12) for this command.

## FUNCTIONS

In LibreOffice Calc program, you can get desired results of computation related work with the help of formula and function. Different operators are used for calculation by formula. Besides this, some predefined functions are given in Calc by using them desired result can be obtained.

### Using Formulas

In LibreOffice Calc, you can use formula to analyze the data in the worksheet. With one formula you can add, subtract, multiply, divide and use comparative operators to obtain desired result from data in the worksheet. A formula is used in worksheet when you want to draw some result from the entered data. Formula in LibreOffice Calc is always starts with (=) sign. Sign "=" shows that the data entered in the related cell is a formula. You can apply any type of formula as given below:

=5+7+10

=5(25-10)/100

=A4+A5+A6+A7

### Functions

In LibreOffice Calc these functions are pre-designed formulas which are used in the worksheet to operate on the stored data. In LibreOffice Calc pre-defined functions are divided in the following parts:

- Database
- Date & Time
- Financial
- Information
- Logical
- Mathematical
- Array
- Statistical
- Spreadsheet
- Text
- Add-in

### Database Functions

Database Functions deals with functions used with data organized as one row of data for one record.

### DAVERAGE

## UPCISS

DAVERAGE returns the average of the values of all cells (fields) in all rows (database records) that match the specified search criteria.

=DAVERAGE(Database; DatabaseField; SearchCriteria)

=DAVERAGE(A1:E10;"Weight";A13:E14)

### DCOUNT

DCOUNT counts the number of rows (records) in a database that match the specified search criteria and contain numerical values in the DatabaseField column.

=DCOUNT(Database; [DatabaseField]; SearchCriteria)

=DCOUNT(A1:E10;D1;A13:E14)

### DCOUNTA

DCOUNTA counts the number of rows (records) in a database that match the specified search conditions, and contain numeric or alphanumeric values.

=DCOUNTA(Database; [DatabaseField]; SearchCriteria)

=DCOUNTA(A1:E10;"Name";

### DGET

DGET returns the contents of the referenced cell in a database which matches the specified search criteria. In case of an error, the function returns either #VALUE! for no row found, or Err502 for more than one cell found.

=DGET(Database; DatabaseField; SearchCriteria)

=DGET(A1:E10;"Grade";A13:E14)

### DMAX

DMAX returns the maximum content of a cell (field) in a database (all records) that matches the specified search conditions.

=DMAX(Database; DatabaseField; SearchCriteria)

=DMAX(A1:E10;"Weight";A13:E14)

### DMIN

DMIN returns the minimum content of a cell (field) in a database that matches the specified search criteria.

=DMIN(Database; DatabaseField; SearchCriteria)

=DMIN(A1:E10;"Distance to School";A13:E14)

### DPRODUCT

DPRODUCT multiplies all cells of a data range where the cell contents match the search criteria.

=DPRODUCT(Database; DatabaseField; SearchCriteria)

### DSTDEV

DSTDEV calculates the standard deviation of a population based on a sample, using the numbers in a database column that match the given conditions. The records are treated as a sample of data. That means that the children in the example represent a cross section of all children. Note that a representative result can not be obtained from a sample of less than one thousand.

## UPCISS

=DSTDEV(Database; DatabaseField; SearchCriteria)

=DSTDEV(A1:E10;"Weight";A13:E14)

### DSTDEVP

DSTDEVP calculates the standard deviation of a population based on all cells of a data range which match the search criteria. The records from the example are treated as the whole population.

=DSTDEVP(Database; DatabaseField; SearchCriteria)

=DSTDEVP(A1:E10;"Weight";A13:E14)

### DSUM

DSUM returns the total of all cells in a database field in all rows (records) that match the specified search criteria.

=DSUM(Database; DatabaseField; SearchCriteria)

=DSUM(A1:E10;"Distance to School";A13:E14)

### DVAR

DVAR returns the variance of all cells of a database field in all records that match the specified search criteria. The records from the example are treated as a sample of data. A representative result cannot be obtained from a sample population of less than one thousand.

=DVAR(Database; DatabaseField; SearchCriteria)

=DVAR(A1:E10;"Weight";A13:E14)

### DVARP

DVARP calculates the variance of all cell values in a database field in all records that match the specified search criteria. The records from the example are treated as an entire population.

=DVARP(Database; DatabaseField; SearchCriteria)

=DVARP(A1:E10;"Weight";A13:E14)

## Date & Time Functions

These spreadsheet functions are used for inserting and editing dates and times. LibreOffice internally handles a date/time value as a numerical value. If you assign the numbering format "Number" to a date or time value, it is converted to a number. For example, 01/01/2000 12:00 PM, converts to 36526.5. The value preceding the decimal point corresponds to the date; the value following the decimal point corresponds to the time. If you do not want to see this type of numerical date or time representation, change the number format (date or time) accordingly. To do this, select the cell containing the date or time value, call its context menu and select Format Cells. The Numbers tab page contains the functions for defining the number format.

### DATE

This function calculates a date specified by year, month, day and displays it in the cell's formatting. The default format of a cell containing the DATE function is the date format, but you can format the cells with any other number format.

=DATE(Year; Month; Day)

=DATE(00;1;31)

If the values for month and day are out of bounds, they are carried over to the next digit. If you enter =DATE(00;12;31) the result will be 2000-12-31. If, on the other hand, you enter =DATE(00;13;31) the result will be 2001-01-31.

### TODAY

Returns the current computer system date. The value is updated when you reopen the document or modify the values of the document. NOW is a function without arguments.

=TODAY()

### YEAR

Returns the year as a number according to the internal calculation rules.

=YEAR(Number)

=YEAR(1) returns 1899

=YEAR(2) returns 1900

=YEAR(33333.33) returns 1991

### NOW

Returns the computer system date and time. The value is updated when you recalculate the document or each time a cell value is modified. NOW is a function without arguments.

=NOW()

### MINUTE

Calculates the minute for an internal time value. The minute is returned as a number between 0 & 59.

=MINUTE(Number)

=MINUTE(8.999) returns 58

=MINUTE(8.9999) returns 59

### MONTH

Returns the month for the given date value. The month is returned as an integer between 1 and 12.

=MONTH(Number)

=MONTH(NOW()) returns the current month.

### DAY

Returns the day of given date value. The day is returned as an integer between 1 and 31. You can also enter a negative date/time value.

=DAY(Number)

=DAY(1) returns 31 (since LibreOffice starts counting at zero from December 30, 1899) =DAY(NOW()) returns the current day.

### DAYS

Calculates the difference between two date values. The result returns the number of days between the two days.

=DAYS(Date2; Date1)

=DAYS(NOW();"2010-01-01") returns the number of days from January 1, 2010 until today.

=DAYS ("1990-10-10";"1980-10-10") returns 3652 days.

## WEEKDAY

Returns the day of the week for the given date value. The day is returned as an integer between 1 (Sunday) and 7 (Saturday) if no type or type=1 is specified. For other types, see the table below.

=WEEKDAY(Number; Type)

=WEEKDAY(NOW()) returns the number of the current day.

=WEEKDAY("2000-06-14") returns 4

=WEEKDAY("1996-07-24";2) returns 3 (the Type parameter is 2, therefore Monday is day number 1. July 24, 1996 was a Wednesday and therefore day number 3).

## TIME

TIME returns the current time value from values for hours, minutes and seconds. This function can be used to convert a time based on these three elements to a decimal time value.

=TIME(Hour; Minute; Second)

=TIME(0;0;0) returns 00:00:00

=TIME(4;20;4) returns 04:20:04

## TIMEVALUE

TIMEVALUE returns the internal time number from a text enclosed by quotes and which may show a possible time entry format.

=TIMEVALUE("Text")

=TIMEVALUE("4PM") returns 0.67. When formatting in time format HH:MM:SS, you then get 16:00:00

=TIMEVALUE("24:00") returns 0. If you use the HH:MM:SS time format, the value is 00:00:00.

## Financial Functions

This category contains the mathematical finance functions of LibreOffice Calc.

### ACCRINT

Calculates the accrued interest of a security in the case of periodic payments.

=ACCRINT(*Issue; FirstInterest; Settlement; Rate; Par; Frequency; Basis*)

**Issue** (required) is the issue date of the security.

**FirstInterest** (required) is the first interest date of the security.

**Settlement** (required) is the date at which the interest accrued up until then is to be calculated. **Rate** (required) is the annual nominal rate of interest (coupon interest rate) **Par** (optional) is the par value of the security.

**Frequency** (required) is the number of interest payments per year (1, 2 or 4).

**Basis** (optional) is chosen from a list of options and indicates how the year is to be calculated. Basic can be 0 to 4

0 or missing US method (NASD), 12 months of 30 days each

### UPCISS

- 1 Exact number of days in months, exact number of days in year
- 2 Exact number of days in month, year has 360 days
- 3 Exact number of days in month, year has 365 days
- 4 European method, 12 months of 30 days each

Example: `=ACCRINTM("2001-04-01";"2001-06-15";0.1;1000;3)` returns 20.54795.

A security is issued on 2001-04-01. The maturity date is set for 2001-06-15. The Rate is 0.1 or 10% and Par is 1000 currency units. The basis of the daily/annual calculation is the daily balance (3).

### AMORDEGRC

Calculates the amount of depreciation for a settlement period as degressive amortization. Unlike AMORLINC, a depreciation coefficient that is independent of the depreciable life is used here.

`=AMORDEGRC(Cost; DatePurchased; FirstPeriod; Salvage; Period; Rate; Basis)`

**Cost** is the acquisition costs.

**DatePurchased** is the date of acquisition.

**FirstPeriod** is the end date of the first settlement period.

**Salvage** is the salvage value of the capital asset at the end of the depreciable life.

**Period** is the settlement period to be considered.

**Rate** is the rate of depreciation.

**Basis** (optional) is chosen from a list of options and indicates how the year is to be calculated.

### AMORLINC

Calculates the amount of depreciation for a settlement period as linear amortization. If the capital asset is purchased during settlement period, the proportional amount of depreciation is considered.

`=AMORLINC(Cost; DatePurchased; FirstPeriod; Salvage; Period; Rate; Basis)`

### DB

Returns the depreciation of an asset for a specified period using the fixed-declining balance method. This form of depreciation is used if you want to get a higher depreciation value at the beginning of the depreciation (as opposed to linear depreciation). The depreciation value is reduced with every depreciation period by the depreciation already deducted from the initial cost.

`=DB(Cost; Salvage; Life; Period; Month)`

`=DB(25000;1000;36;1;6) = 1,075.00` currency units

**Cost** is the initial cost of an asset.

**Salvage** is the value of an asset at the end of the depreciation.

**Life** defines the period over which an asset is depreciated.

**Period** is the length of each period. The length must be entered in the same date unit as the depreciation period.

**Month** (optional) denotes the number of months for the first year of depreciation. If an entry is not defined, 12 is used as the default.

### DDB

## UPCISS

Returns the depreciation of an asset for a specified period using the arithmetic-declining method. Use this form of depreciation if you require a higher initial depreciation value as opposed to linear depreciation. The depreciation value gets less with each period and is usually used for assets whose value loss is higher shortly after purchase (for example, vehicles, and computers). Please note that the book value will never reach zero under this calculation type.

=DDB(Cost; Salvage; Life; Period; Factor) =DDB(75000;1;60;12;2) = 1,721.81 currency units.

**Cost** fixes the initial cost of an asset.

**Salvage** fixes the value of an asset at the end of its life.

**Life** is the number of periods (for example, years or months) defining how long the asset is to be used. **Period** states the period for which the value is to be calculated.

**Factor** (optional) is the factor by which depreciation decreases. If a value is not entered, the default is factor 2.

## DISC

Calculates the allowance (discount) of a security as a percentage.

=DISC("Settlement"; "Maturity"; Price; Redemption; Basis)

=DISC("2001-01-25";"2001-11-15";97;100;3) returns about 0.0372 or 3.72 per cent.

**Settlement** is the date of purchase of the security.

**Maturity** is the date on which the security matures (expires).

**Price** is the price of the security per 100 currency units of par value.

**Redemption** is the redemption value of the security per 100 currency units of par value.

**Basis** (optional) is chosen from a list of options and indicates how the year is to be calculated.

## IRR

Calculates the internal rate of return for an investment. The values represent cash flow values at regular intervals, at least one value must be negative (payments), and at least one value must be positive (income). If the payments take place at irregular intervals, use the XIRR function. =IRR(Values; Guess)

**Values** represents an array containing the values.

**Guess** (optional) is the estimated value. An iterative method is used to calculate the internal rate of return. If you can provide only few values, you should provide an initial guess to enable the iteration.

Example

Under the assumption that cell contents are A1=-10000, A2=3500, A3=7600 and A4=1000, the formula =IRR(A1:A4) gives a result of 11,33%.

## ISPMT

Calculates the level of interest for unchanged amortization installments.

=ISPMT(Rate; Period; TotalPeriods; Invest)

**Rate** sets the periodic interest rate.

**Period** is the number of installments for calculation of interest.

**TotalPeriods** is the total number of installment periods. **Invest** is the amount of the investment.

Example

## UPCISS

For a credit amount of 120,000 currency units with a two-year term and monthly installments, at a yearly interest rate of 12% the level of interest after 1.5 years is required.

=ISPMT(1%;18;24;120000) = -300 currency units. The monthly interest after 1.5 years amounts to 300 currency units.

## PV

Returns the present value of an investment resulting from a series of regular payments. Use this function to calculate the amount of money needed to be invested at a fixed rate today, to receive a specific amount, an annuity, over a specified number of periods. You can also determine how much money is to remain after the elapse of the period. Specify as well if the amount is to be paid out at the beginning or at the end of each period.

Enter these values either as numbers, expressions or references. If, for example, interest is paid annually at 8%, but you want to use month as your period, enter 8%/12 under Rate and LibreOffice Calc will automatically calculate the correct factor.

= PV(Rate; NPer; Pmt; FV; Type)

**Rate** defines the interest rate per period.

**NPer** is the total number of periods (payment period).

**Pmt** is the regular payment made per period.

**FV** (optional) defines the future value remaining after the final installment has been made.

**Type** (optional) denotes due date for payments. Type = 1 means due at the beginning of a period and Type = 0 (default) means due at the end of the period.

### Example

What is the present value of an investment, if 500 currency units are paid out monthly and the annual interest rate is 8%? The payment period is 48 months and 20,000 currency units are to remain at the end of the payment period.

=PV(8%/12;48;500;20000) = -35,019.37 currency units.

Under the named conditions, you must deposit 35,019.37 currency units today, if you want to receive 500 currency units per month for 48 months and have 20,000 currency units left over at the end. Cross-checking shows that 48 x 500 currency units + 20,000 currency units = 44,000 currency units. The difference between this amount and the 35,000 currency units deposited represents the interest paid.

## Information Functions

Information Functions contains the Information functions.

### CELL

Returns information on address, formatting or contents of a cell.

= CELL("InfoType"; Reference)

=CELL("COL";D2)

=CELL("ROW";D2)

=CELL("Sheet";Sheet3.D2)

InfoType is the character string that specifies the type of information. The character string is always in English. Upper or lower case is optional.

## CURRENT

This function returns the result to date of evaluating the formula of which it is a part (in other words the result as far as that evaluation has got). Its main use is together with the STYLE() function to apply selected styles to a cell depending on the cell contents.

= CURRENT()

=1+2+CURRENT()

=A2+B2+STYLE(IF(CURRENT())>10;"Red";"Default")

The example returns 6. The formula is calculated from left to right as: 1 + 2 equals 3, giving the result to date when CURRENT() is encountered; CURRENT() therefore yields 3, which is added to the original 3 to give 6.

## IFERROR

Returns the value if the cell does not contains an error value, or the alternative value if it does.

=IFERROR(Value;Alternate\_value)

=IFERROR(C8;C9) where cell C8 contains =1/0 returns the value of C9, because 1/0 is an error Value is the value or expression to be returned if it is not equal or results in an error.

Alternate\_value is the value or expression to be returned if the expression or value of Value is equal or results in an error.

## INFO

Returns specific information about the current working environment. The function receives a single text argument and returns data depending on that parameter.

=INFO("Type")

=INFO(D5) with cell D5 containing a text string system returns the operation system type.

The following table lists the values for the text parameter Type and the return values of the INFO function.

## ISBLANK

Returns TRUE if the reference to a cell is blank. This function is used to determine if the content of a cell is empty. A cell with a formula inside is not empty. If an error occurs, the function returns a logical or numerical value.

= ISBLANK(Value)

=ISBLANK(D2) returns FALSE as a result.

Value is the content to be tested.

## ISERR

Tests for error conditions, except the #N/A error value, and returns TRUE or FALSE. If an error occurs, the function returns a logical or numerical value.

= ISERR(Value)

=ISERR(C8) where cell C8 contains =1/0 returns TRUE, because 1/0 is an error.

=ISERR(C9) where cell C9 contains =NA() returns FALSE, because ISERR() ignores the #N/A error. Value is any value or expression which is tested to see whether an error value other than #N/A is present.

## ISERROR

Tests for error conditions, including the #N/A error value, and returns TRUE or FALSE. If an error occurs, the function returns a logical or numerical value.

= ISERROR(Value)

=ISERROR(C8) where cell C8 contains =1/0 returns TRUE, because 1/0 is an error.

=ISERROR(C9) where cell C9 contains =NA() returns TRUE.

ISEVEN

Value is or refers to the value to be tested. ISERROR() returns TRUE if there is an error and FALSE if not.

## ISLOGICAL

Tests for a logical value (TRUE or FALSE). If an error occurs, the function returns FALSE.

= ISLOGICAL(Value)

=ISLOGICAL(99) returns FALSE, because 99 is a number, not a logical value.

=ISLOGICAL(ISNA(D4)) returns TRUE whatever the contents of cell D4, because ISNA() returns a logical value.

## ISODD

Returns TRUE if the value is odd, or FALSE if the number is even.

= ISODD(value)

=ISODD(33) returns TRUE

=ISODD(48) returns FALSE

=ISODD(3.999) returns TRUE

=ISODD(-3.1) returns TRUE

Value is the value to be checked. If Value is not an integer any digits after the decimal point are ignored. The sign of Value is also ignored.

## Logical Functions

This category contains the Logical functions.

Handling non-logical arguments in logical functions

- Zero (0) is equivalent to FALSE and all other numbers are equivalent to TRUE.
- Empty cells and text in cells are ignored.
- A #VALUE error is raised if all arguments are ignored.
- A #VALUE error is raised if one argument is direct text (not text in a cell).
- Errors as argument lead to an error.

## AND

Returns TRUE if all arguments are TRUE. If one of the elements is FALSE, this function returns the FALSE value. The arguments are either logical expressions themselves (TRUE, 1<5, 2+3=7, B8<10) that return logical values, or arrays (A1:C3) containing logical values.

= AND(LogicalValue1; LogicalValue2 ...LogicalValue30)

**LogicalValue1; LogicalValue2 ...LogicalValue30** are conditions to be checked. All conditions can be either TRUE or FALSE. If a range is entered as a parameter, the function uses all values of the range. The result is TRUE if the logical value in all cells within the cell range is TRUE.

Example

The logical values of entries  $12 < 13$ ;  $14 > 12$ , and  $7 < 6$  are to be checked:

=AND(12<13;14>12;7<6) returns FALSE.

=AND (FALSE;TRUE) returns FALSE.

## FALSE

Returns the logical value FALSE. The FALSE() function does not require any arguments, and always returns the logical value FALSE.

=FALSE()

=FALSE() returns FALSE

=NOT(FALSE()) returns TRUE

## IF

Specifies a logical test to be performed.

= IF(Test; ThenValue; OtherwiseValue)

=IF(A1>5;100;"too small")

If the value in A1 is higher than 5, the value 100 is entered in the current cell; otherwise, the text "too small" (without quotes) is entered.

**Test** is any value or expression that can be TRUE or FALSE.

**ThenValue** (optional) is the value that is returned if the logical test is TRUE.

**OtherwiseValue** (optional) is the value that is returned if the logical test is FALSE.

## NOT

Complements (inverts) a logical value.

= NOT(LogicalValue)

=NOT(A). If A=TRUE then NOT(A) will evaluate FALSE.

LogicalValue is any value to be complemented.

## OR

Returns TRUE if at least one argument is TRUE. This function returns the value FALSE, if all the arguments have the logical value FALSE.

The arguments are either logical expressions themselves (TRUE,  $1 < 5$ ,  $2 + 3 = 7$ ,  $B8 < 10$ ) that return logical values, or arrays (A1:C3) containing logical values. = OR(LogicalValue1; LogicalValue2 ...LogicalValue30)

Example

The logical values of entries  $12 < 11$ ;  $13 > 22$ , and  $45 = 45$  are to be checked.

=OR(12<11;13>22;45=45) returns TRUE. =OR(FALSE;TRUE) returns

TRUE.

## TRUE

The logical value is set to TRUE. The TRUE() function does not require any arguments, and always returns the logical value TRUE.

= TRUE()

Example

If A=TRUE and B=FALSE the following examples appear:

=AND(A;B) returns FALSE

=OR(A;B) returns TRUE

=NOT(AND(A;B)) returns TRUE

## XOR

Returns true if an odd number of arguments evaluates to TRUE.

The arguments are either logical expressions themselves (TRUE, 1<5, 2+3=7, B8<10) that return logical values, or arrays (A1:C3) containing logical values.

= XOR(LogicalValue1; LogicalValue2 ...LogicalValue30)

Example

=XOR(TRUE;TRUE) returns FALSE

=XOR(TRUE;TRUE;TRUE) returns TRUE

=XOR(FALSE;TRUE) returns TRUE

## Mathematical Functions

This category contains the Mathematical functions for Calc.

### ABS

Returns the absolute value of a number.

= ABS(Number) =ABS(-56) returns 56.

=ABS(12) returns 12. =ABS(0) returns

0.

Number is the number whose absolute value is to be calculated. The absolute value of a number is its value without the +/- sign.

### ACOS

Returns the inverse trigonometric cosine of a number.

= ACOS(Number)

=ACOS(-1) returns 3.14159265358979 (PI radians)

=DEGREES(ACOS(0.5)) returns 60. The cosine of 60 degrees is 0.5.

This function returns the inverse trigonometric cosine of Number, that is the angle (in radians) whose cosine is Number. The angle returned is between 0 and PI. To return the angle in degrees, use the DEGREES function.

## ACOSH

Returns the inverse hyperbolic cosine of a number.

= ACOSH(Number)

=ACOSH(1) returns 0.

=ACOSH(COSH(4)) returns 4.

This function returns the inverse hyperbolic cosine of Number, that is the number whose hyperbolic cosine is Number. Number must be greater than or equal to 1.

## CEILING

Rounds a number up to the nearest multiple of Significance.

= CEILING(Number; Significance; Mode)

=CEILING(-11;-2) returns -10

=CEILING(-11;-2;0) returns -10

=CEILING(-11;-2;1) returns -12

Number is the number that is to be rounded up.

Significance is the number to whose multiple the value is to be rounded up.

Mode is an optional value. If the Mode value is given and not equal to zero, and if Number and Significance are negative, then rounding is done based on the absolute value of Number, i.e. negative numbers are rounded away from zero. If the Mode value is equal to zero or is not given, negative numbers are rounded towards zero.

## COMBIN

Returns the number of combinations for elements without repetition. =

COMBIN(Count1; Count2) =COMBIN(3;2) returns 3.

**Count1** is the number of items in the set.

**Count2** is the number of items to choose from the set.

COMBIN returns the number of ordered ways to choose these items. For example if there are 3 items A, B and C in a set, you can choose 2 items in 3 different ways, namely AB, AC and BC. COMBIN implements the formula:  $\text{Count1!}/(\text{Count2!} * (\text{Count1}-\text{Count2})!)$

## COS

Returns the cosine of the given angle (in radians).

= COS(Number)

=COS(PI()\*2) returns 1, the cosine of 2\*PI radians.

=COS(RADIANS(60)) returns 0.5, the cosine of 60 degrees.

Returns the (trigonometric) cosine of Number, the angle in radians. To return the cosine of an angle in degrees, use the RADIANS function.

## COT

Returns the cotangent of the given angle (in radians).

=COT(Number)

=COT(PI()/4) returns 1, the cotangent of PI/4 radians.

=COT(RADIANS(45)) returns 1, the cotangent of 45 degrees.

Returns the (trigonometric) cotangent of Number, the angle in radians. To return the cotangent of an angle in degrees, use the RADIANS function.

The cotangent of an angle is equivalent to 1 divided by the tangent of that angle.

## CSC

Returns the cosecant of the given angle (in radians). The cosecant of an angle is equivalent to 1 divided by the sine of that angle

= CSC(Number)

=CSC(PI()/4) returns approximately 1.4142135624, the inverse of the sine of PI/4 radians.

=CSC(RADIANS(30)) returns 2, the cosecant of 30 degrees.

## DEGREES

Converts radians into degrees.

= DEGREES(Number)

=DEGREES(PI()) returns 180 degrees.

Number is the angle in radians to be converted to degrees.

## EVEN

Rounds a positive number up to the next even integer and a negative number down to the next even integer.

=EVEN(Number) =EVEN(2.3) returns

4.

=EVEN(2) returns 2.

=EVEN(0) returns 0.

=EVEN(-0.5) returns -2.

Returns Number rounded to the next even integer up, away from zero.

## EXP

Returns e raised to the power of a number. The constant e has a value of approximately 2.71828182845904.

= EXP(Number)

=EXP(1) returns 2.71828182845904, the mathematical constant e to Calc's accuracy. Number is the power to which e is to be raised.

## FACT

Returns the factorial of a number.

= FACT(Number)

=FACT(0) returns 1 by definition.

=FACT(3) returns 6.

=FACT(0) returns 1.

Returns Number!, the factorial of Number, calculated as  $1*2*3*4* \dots * \text{Number}$ .

## UPCISS

## FLOOR

Rounds a number down to the nearest multiple of Significance.

= FLOOR(Number; Significance; Mode)

Number is the number that is to be rounded down.

Significance is the value to whose multiple the number is to be rounded down. Mode is an optional value.

## GCD

Returns the greatest common divisor of two or more integers. The greatest common divisor is the positive largest integer which will divide, without remainder, each of the given integers.

= GCD(Integer1; Integer2; ...; Integer30)

=GCD(B1:B3) where cells B1, B2, B3 contain 9, 12, 9 gives 3.

Integer1 To 30 are up to 30 integers whose greatest common divisor is to be calculated.

## INT

Rounds a number down to the nearest integer.

= INT(Number) =INT(5.7) returns

5.

=INT(-1.3) returns -2.

Returns Number rounded down to the nearest integer. Negative numbers round down to the integer below.

## LCM

Returns the least common multiple of one or more integers.

= LCM(Integer1; Integer2; ...; Integer30)

Integer1 to 30 are up to 30 integers whose lowest common multiple is to be calculated.

If you enter the numbers 512;1024 and 2000 in the Integer 1;2 and 3 text boxes, 128000 will be returned as the result.

## LN

Returns the natural logarithm based on the constant e of a number. The constant e has a value of approximately 2.71828182845904.

= LN(Number)

=LN(3) returns the natural logarithm of 3 (approximately 1.0986). =LN(EXP(321)) returns 321.

Number is the value whose natural logarithm is to be calculated.

## LOG

Returns the logarithm of a number to the specified base.

= LOG(Number; Base)

=LOG(10;3) returns the logarithm to base 3 of 10 (approximately 2.0959). =LOG(7^4;7) returns 4.

## MOD

Returns the remainder when one integer is divided by another.

= MOD(Dividend; Divisor)

=MOD(22;3) returns 1, the remainder when 22 is divided by 3. =MOD(11.25;2.5) returns 1.25.

For integer arguments this function returns Dividend modulo Divisor, that is the remainder when **Dividend** is divided by **Divisor**.

## ODD

Rounds a positive number up to the nearest odd integer and a negative number down to the nearest odd integer.

= ODD(Number) =ODD(1.2) returns 3.

=ODD(1) returns 1.

=ODD(0) returns 1.

=ODD(-3.1) returns -5.

Returns Number rounded to the next odd integer up, away from zero.

## PI

Returns 3.14159265358979, the value of the mathematical constant PI to 14 decimal places.

= PI()

=PI() returns 3.14159265358979.

## POWER

Returns a number raised to another number.

= POWER(Base; Exponent)

=POWER(4;3) returns 64, which is 4 to the power of 3.

=4^3 also returns 4 to the power of 3.

Returns Base raised to the power of Exponent.

The same result may be achieved by using the exponentiation operator ^:

Base^Exponent

## PRODUCT

Multiplies all the numbers given as arguments and returns the product. =

PRODUCT(Number1; Number2; ...; Number30) =PRODUCT(2;3;4) returns 24.

## RADIANS

Converts degrees to radians.

= RADIANS(Number)

=RADIANS(90) returns 1.5707963267949, which is  $\pi/2$  to Calc's accuracy. Number is the angle in degrees to be converted to radians.

## RAND

Returns a random number between 0 and 1.

= RAND()

=RAND() returns a random number between 0 and 1.

This function produces a new random number each time Calc recalculates. To force Calc to recalculate manually press F9.

## ROUND

Rounds a number to a certain number of decimal places.

=ROUND(Number; Count) =ROUND(2.348;2) returns

2.35 =ROUND(2.348;0) returns 2.

=ROUND(2.5) returns 3.

=ROUND(987.65;-2) returns 1000.

Returns Number rounded to Count decimal places. If Count is omitted or zero, the function rounds to the nearest integer. If Count is negative, the function rounds to the nearest 10, 100, 1000, etc. This function rounds to the nearest number. See ROUNDDOWN and ROUNDUP for alternatives.

## SEC

Returns the secant of the given angle (in radians). The secant of an angle is equivalent to 1 divided by the cosine of that angle

= SEC(Number)

=SEC(PI()/4) returns approximately 1.4142135624, the inverse of the cosine of  $\pi/4$  radians.

=SEC(RADIANS(60)) returns 2, the secant of 60 degrees.

Returns the (trigonometric) secant of Number, the angle in radians. To return the secant of an angle in degrees, use the RADIANS function.

## SIGN

Returns the sign of a number. Returns 1 if the number is positive, -1 if negative and 0 if zero.

= SIGN(Number) =SIGN(3.4) returns

1.

=SIGN(-4.5) returns -1.

Number is the number whose sign is to be determined.

## SIN

Returns the sine of the given angle (in radians).

= SIN(Number)

=SIN(PI()/2) returns 1, the sine of  $\pi/2$  radians.

=SIN(RADIANS(30)) returns 0.5, the sine of 30 degrees.

Returns the (trigonometric) sine of Number, the angle in radians.

## UPCISS

To return the sine of an angle in degrees, use the RADIANS function.

## SQRT

Returns the positive square root of a number.

= SQRT(Number)

=SQRT(16) returns 4.

=SQRT(-16) returns an invalid argument error

Returns the positive square root of Number. Number must be positive.

## SUBTOTAL

Calculates subtotals. If a range already contains subtotals, these are not used for further calculations. Use this function with the AutoFilters to take only the filtered records into account.

= SUBTOTAL(Function; Range) =SUBTOTAL(9;B2:B6) returns 50.

=SUBTOTAL(109;B2:B6) returns 40.

## SUM

Adds all the numbers in a range of cells.

= SUM(Number1; Number2; ...; Number30)

=SUM(A1;A3;B5) calculates the sum of the three cells.

=SUM (A1:E10) calculates the sum of all cells in A1 to E10 cell range.

=SUM((A1:A40>=C1)\*(A1:A40<C2)\*B1:B40)

## SUMIF

Adds the cells specified by a given criteria. This function is used to browse a range when you search for a certain value.

= SUMIF(Range; Criteria; SumRange)

=SUMIF(A1:A10;"<0")

=SUMIF(A1:A10;">0";B1:10)

**Range** is the range to which the criteria are to be applied.

**Criteria** is the cell in which the search criterion is shown, or the search criterion itself. If the criteria is written into the formula, it has to be surrounded by double quotes.

**SumRange** is the range from which values are summed. If this parameter has not been indicated, the values found in the Range are summed.

## Text Functions

Text Functions contains descriptions of the Text functions.

## CHAR

Converts a number into a character according to the current code table. The number can be a twodigit or three-digit integer number. Codes greater than 127 may depend on your system's character mapping (for example iso-8859-1, iso-8859-2, Windows-1252, Windows-1250), and hence may not be portable.

= CHAR(Number)

=CHAR(100) returns the character d.

Number is a number between 1 and 255 representing the code value for the character.

## CLEAN

All non-printing characters are removed from the string.

=CLEAN("Text")

Text refers to the text from which to remove all non-printable characters.

## CONCATENATE

Combines several text strings into one string.

= CONCATENATE("Text1"; ...; "Text30")

=CONCATENATE("Good "; "Morning "; "Mrs. "; "Doe") returns: Good Morning Mrs. Doe.

Text 1; Text 2; ... represent up to 30 text passages which are to be combined into one string.

## EXACT

Compares two text strings and returns TRUE if they are identical. This function is case-sensitive.

= EXACT("Text1"; "Text2")

=EXACT("microsystems"; "Microsystems") returns FALSE.

Text1 refers to the first text to compare. Text2 is the second text to compare.

## LEFT

Returns the first character or characters of a text.

= LEFT("Text"; Number)

=LEFT("output";3) returns "out".

Text is the text where the initial partial words are to be determined.

Number (optional) specifies the number of characters for the start text. If this parameter is not defined, one character is returned.

## LEN

Returns the length of a string including spaces.

= LEN("Text")

=LEN("Good Afternoon") returns 14.

=LEN(12345.67) returns 8.

Text is the text whose length is to be determined.

## LOWER

Converts all uppercase letters in a text string to lowercase.

= LOWER("Text")

=LOWER("Sun") returns sun.

Text refers to the text to be converted.

## PROPER

Capitalizes the first letter in all words of a text string.

= PROPER("Text")

=PROPER("open office") returns Open Office.

Text refers to the text to be converted.

## REPT

Repeats a character string by the given number of copies.

= REPT("Text"; Number)

=REPT("Good morning";2) returns Good morningGood morning.

**Text** is the text to be repeated. **Number** is the number of repetitions.

The result can be a maximum of 255 characters.

## TRIM

Removes spaces from a string, leaving only a single space character between words.

= TRIM("Text")

=TRIM(" hello world ") returns hello world without leading and trailing spaces and with single space between words.

Text refers to text in which spaces are to be removed.

## UNICHAR

Converts a code number into a Unicode character or letter.

= UNICHAR(number)

=UNICHAR(169) returns the Copyright character ©.

## UNICODE

Returns the numeric code for the first Unicode character in a text string.

= UNICODE("Text")

=UNICODE("©") returns the Unicode number 169 for the Copyright character.

## UPPER

Converts the string specified in the text field to uppercase.

= UPPER("Text") Text refers to the lower case letters you want to convert to upper case.

=UPPER("Good Morning") returns GOOD MORNING.

## UPCISS

## VALUE

Converts a text string into a number.

= VALUE("Text")

=VALUE("4321") returns 4321.

Text is the text to be converted to a number.

## Lesson-4: Impress

LibreOffice Impress lets you create professional slide shows that can include charts, drawing objects, text, multimedia and a variety of other items. If you want, you can even import and modify Microsoft PowerPoint presentations.

For on-screen slide shows, animation, slide transitions and multimedia are a few of the techniques you can use to make your presentation more exciting.

### Creating Vector Graphics

Many of the tools for creating vector graphics in LibreOffice Draw are available in LibreOffice Impress.

### Creating Slides

LibreOffice Impress provides you with templates to create professional-looking slides. You can also assign a number of dynamic effects to your slides, including animation and transition effects.

### Creating Presentations

Several views or pages are available when you design a slide show. For example, the Slide Sorter displays an overview of your slides in thumbnail form, while the Handout page contains both the slide and the text you want to distribute to the audience. LibreOffice Impress also lets you rehearse the timing of your slide show.

### Publishing Presentations

You can publish your slides on-screen, as handouts, or as HTML documents.

### Giving Presentations

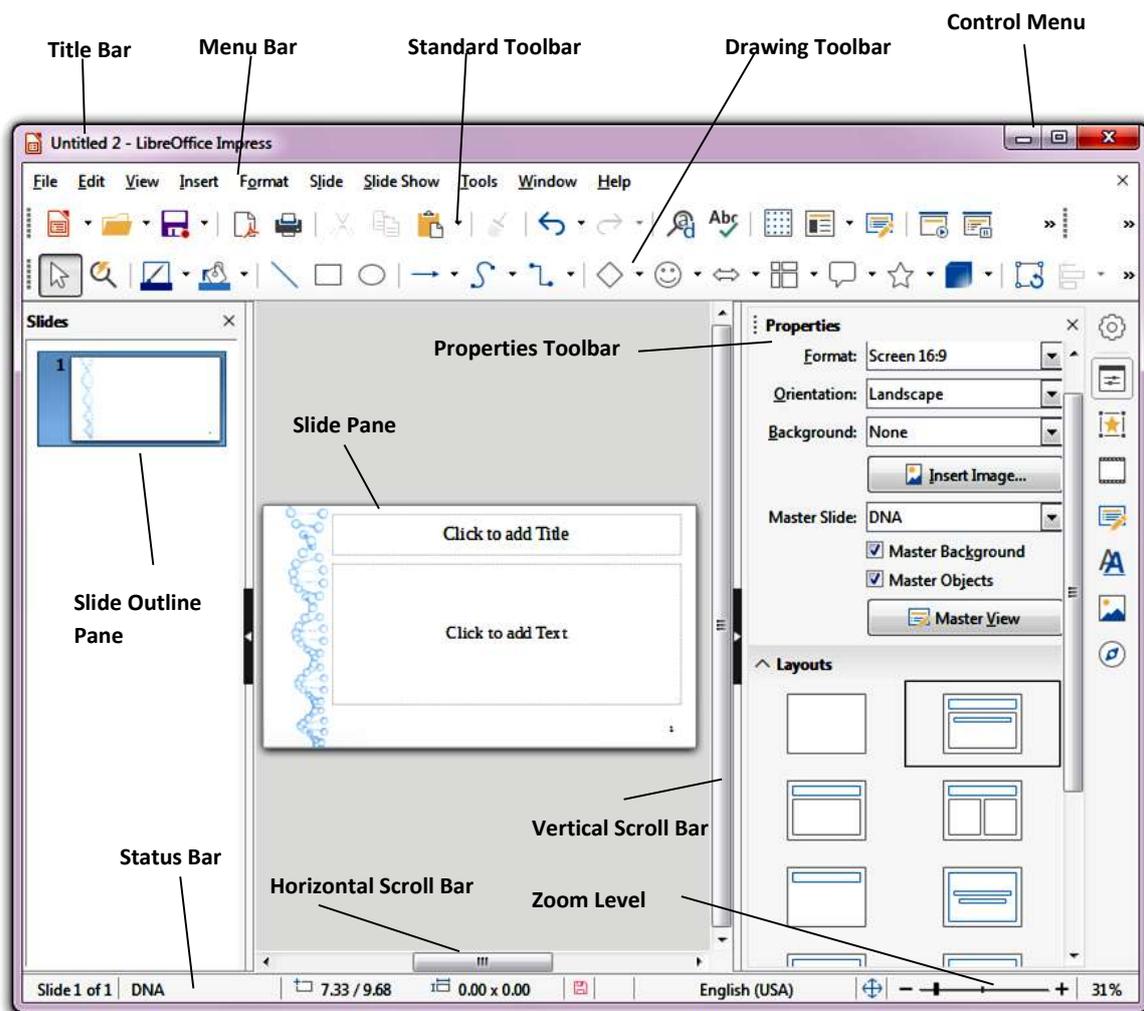
LibreOffice Impress gives you the choice of running a slide show automatically or manually.

### Creating Web Presentation

Web presentation can be easily prepared in Impress Presentation. It can be accessed easily by using any web browser. To use Power Point, it is necessary to start it. When you start Presentation then a new presentation (Untitled 1) creates on its own. After saving it, the given file name will be displayed here.

## Interface- Impress

LibreOffice Impress interface is look like a Microsoft PowerPoint. Maximum menu, toolbars and commands are managed according to Microsoft PowerPoint. Command icons are also displays and arranged at toolbars. If you are familiar with Microsoft PowerPoint, you can easily operate and work in LibreOffice Impress.



The top line of LibreOffice Impress window is called Title Bar. Name of the file, program name related information is displayed in the title bar. You can see slides in big or small view with the help of zoom slider. The zoom size of slide in LibreOffice Impress is 72% by default. You can make it up to minimum 5% and maximum 3000%.

LibreOffice Impress includes several tools to help organize and arrange content on your slides, including the Ruler, guides, and gridlines. These tools make it easier to align objects on your slides. Simply click the check boxes in the Show group on the View tab to show and hide these tools.

Ruler bar is displayed right below the ribbon bar. It displays that functional field, where we do typing of slide. In LibreOffice Impress, you can "ON" or "OFF" ruler bar with the help of Ruler command in View menu or using shortcut key (Ctrl+Shift+R). Status bar is displayed at the bottom in Microsoft Power Point windows, which displays the current position of the slide or presentation like – slide number title, slide number, column number, views button, zoom level etc.

You can also use the properties bar for making and modifying a slide. The properties bar will be changed as per your selection of text, object, text box, chart, etc. Your work on a slide is displayed on the slide pane. You can use the F5 key to start a slide show.

## **Menus**

The window containing the document you want to work on must be selected in order to use the menu commands. Similarly, you must select an object in the document to use the menu commands associated with the object. The following section lists the help topics available for menus and dialogs.

### **File**

These commands apply to the current document, open a new document, or close the application.

### **Edit**

This menu contains commands for editing the contents of the current document.

### **View**

This menu contains commands for controlling the on-screen display of the document.

### **Insert**

This menu contains the commands that are used to insert new elements into the document, for example, graphics, objects, special characters and other files.

### **Format**

Contains commands for formatting the layout and the contents of your document.

### **Slide**

This menu provides slide management and navigation commands.

### **Slide Show**

Contains commands and options for running a presentation.

### **Tools**

Contains spelling tools, a gallery of object art that you can add to your document, as well as tools for configuring menus, and setting program preferences.

### **Window**

Contains commands for manipulating and displaying document windows.

### **Help**

The Help menu allows you to start and control the LibreOffice Help system.

## **FILE MENU**

These commands apply to the current document, open a new document, or close the application.

## New

Creates a new LibreOffice document. You can use shortcut key (Ctrl+N) for this command.

## Open

Opens a local or remote file, or imports one. You can use shortcut key (Ctrl+O) for this command.

## Close

Closes the current document without exiting the program.

## Wizards

Guides you through creating business and personal letters, faxes, agendas, presentations, and more.

## Templates

Lets you organize and edit your templates, as well as save the current a template.

## Versions

Saves and organizes multiple versions of the current document in the file. You can also open, delete and compare previous versions.

## Save

Saves the current document. You can use shortcut key (Ctrl+S) for this command. You can use the **Save As** command to Saves the current document in a different location, or with a different file name or file You can use shortcut key (Ctrl+Shift+S) for this command.

## Export as PDF

Saves the current file to Portable Document Format (PDF) version 1.4.

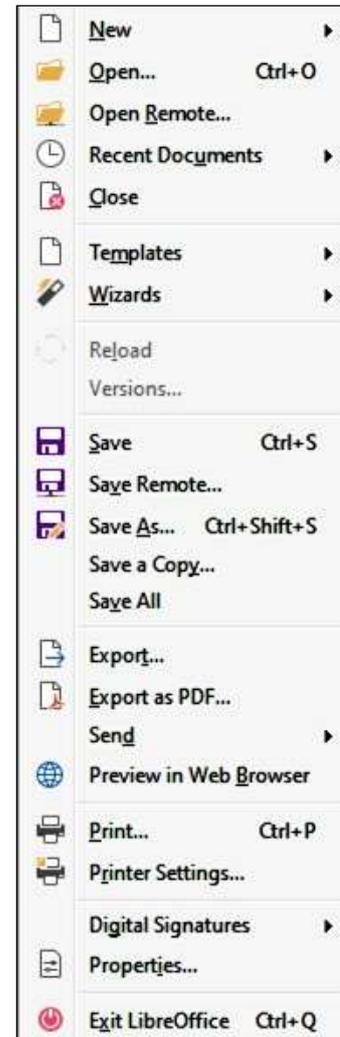
A PDF file can be viewed and printed on any platform with the original formatting intact, provided that supporting software is installed.

## Preview in Web Browser

Creates a temporary copy of the current document in HTML format, opens the system default Web browser, and displays the HTML file in the Web browser.

## Print

Prints the current document, selection, or the pages that you specify. You can also set the print options for the current document. The printing options can vary according to the printer and the operating system that you use. You can use shortcut key (Ctrl+P) for this command. select the Printer Settings command to Select the default printer for the current document.



## Document Properties

Displays the properties for the current file, including statistics such as word count and the date the file was created.

## EDIT MENU

This menu contains commands for editing the contents of current document.

### Undo

Reverses the last command or the last entry you typed. To the command that you want to reverse, click the arrow to the Undo icon on the Standard bar. You can use shortcut (Ctrl+Z) for this command.

### Redo

Reverses the action of the last Undo command. To select Undo step that you want to reverse, click the arrow next to Redo icon on the Standard bar. You can use shortcut key (Ctrl+Y) for this command.

### Cut, Copy and Paste

Cut command is used to removes and copies the selection clipboard and Copy command is used to Copies the selection to the clipboard. Paste command Inserts the contents of the clipboard at the location of the cursor, and replaces any selected text or objects. You can use shortcut key (Ctrl+C) for copy command, Ctrl+X for cut command and Ctrl+V for this command.

### Select All

Selects the entire content of the current file, frame, or text object. You can use shortcut key (Ctrl+A) for this command.

### Find & Replace

Finds or replaces text or formats in the current document. You can use shortcut key (Ctrl+H) for this command.

### Duplicate

Makes one or more copies of a selected object.

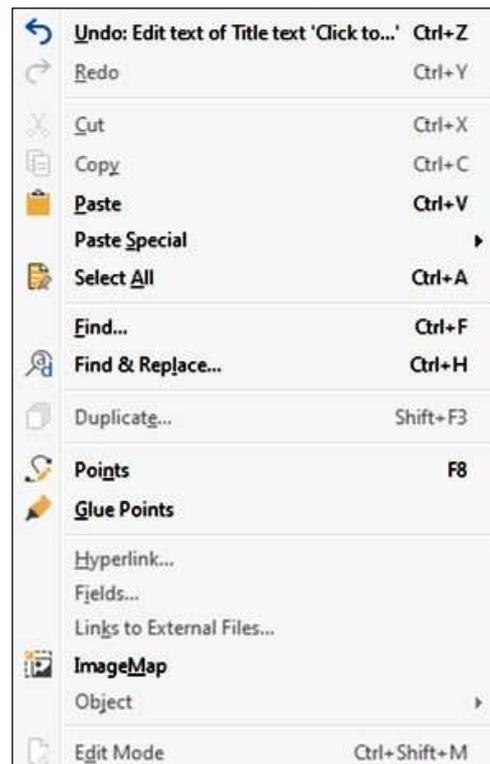
### Points

Switches the Edit Points mode on and off.

### Glue Points

Switches the Edit Glue Points mode on and off.

### Hyperlink



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Opens a dialog that enables you to create and edit hyperlinks.

### **Fields**

Edits the properties of an inserted field.

### **Delete Slide**

Deletes the current slide or page.

### **Links**

Lets you edit the properties of each link in the current document, including the path to the source file. This command is not available if the current document does not contain links to other files.

### **ImageMap**

Allows you to attach URLs to specific areas, called hotspots, on a graphic or a group of graphics. An image map is a group of one or more hotspots.

### **Object**

Lets you edit a selected object in your file that you inserted with the Insert - Object command.

## **VIEW MENU**

This menu contains commands for controlling the on-screen display of the document.

### **Normal**

Switches to normal view, where you can create and edit your slides.

### **Outline**

Switches to outline view, where you can add, edit and reorganize slide titles and headings.

### **Notes**

Switches to notes view, where you can add notes to your slides. Notes are hidden from the audience when you give your presentation.

### **Handout**

Switches to the handout page view, where you can scale several slides to one printed page.

### Slide Sorter

Displays miniature versions of the slides so they can easily be rearranged.

### Master Slide

Switches to master slide view, where you can add elements that you want appear on all of the slides that use the same master slide.

### Master Notes

Displays the master notes, where you can set the default formatting for notes.

### Toolbars

Opens a submenu to show and hide toolbars. A toolbar contains icons and options that let you quickly access LibreOffice commands. You can use **Bar** command to Shows or hides the Status bar at the bottom edge of the window and **Rulers** command to displays or hides rulers at the top and right edges of the workspace.

### Slide Pane

Switches the Slide Pane on and off.

### Grid

Sets the display properties of a grid.

### Snap Lines

Specifies the display options for snap lines.

### Object Moving Helplines

Specifies whether to display guides when moving an object.

### Color/Grayscale

Shows slides in color, grayscale, or black and white.

### Master Background

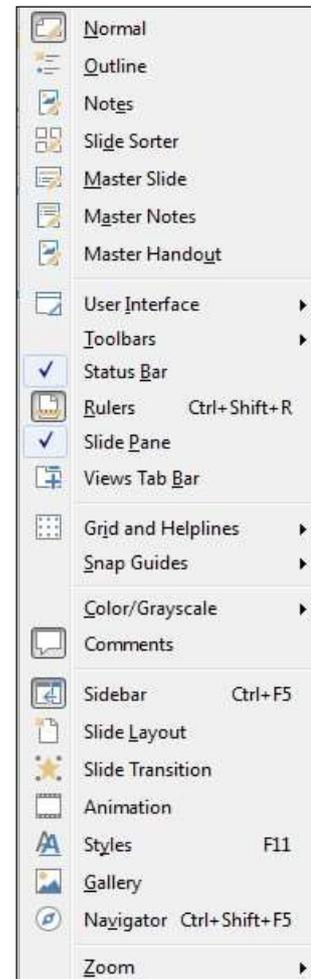
Toggle the visibility of a master slide's background to be used as the background of the current slide.

### Master Objects

Toggle the visibility of a master slide's objects to appear on the current slide.

### Master Elements

Add header, footer, date, and slide number placeholders to the master slide.



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## Sidebar

The Sidebar is a vertical graphical user interface that primarily provides contextual properties, style management, document navigation, and media gallery features.

## Styles

Opens the Styles deck of the Sidebar, which lists the available graphic and presentation styles for applying and editing.

## Clip Art Gallery

Opens the Gallery deck of the Sidebar, where you can select images and audio clips to insert into your document.

## Navigator

Opens the Navigator, where you can quickly jump to other slides or move between open files.

## INSERT MENU

This menu contains the commands that are used to insert new elements into the document, for example, graphics, objects, special characters and other files.

### Slide Number

Adds the slide number or the page number.

### Fields

Lists common fields that you can insert into your slide.

### Comment

Inserts a comment around the selected text or at the current cursor position.

### Special Character

Allows a user to insert characters from the range of symbols found in the installed fonts.

### Formatting Mark

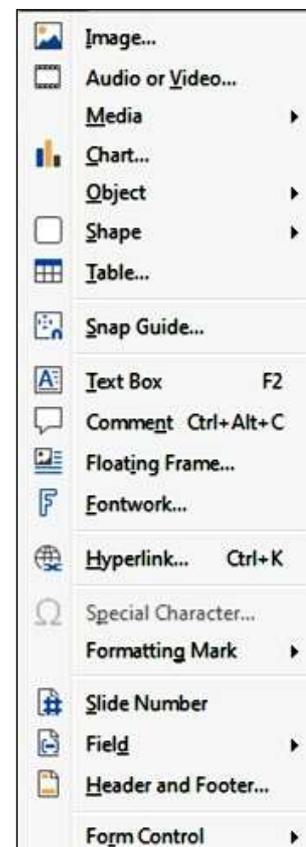
Opens a submenu to insert special formatting marks like non-breaking space, soft hyphen, and optional break.

### Animated Image

Creates a custom animation on the current slide. You can only use existing objects to create an animation.

### Media

The submenu presents various sources that an image, audio or video can be insert from. You can Inserts a video or audio file into your document.



**Object**

Inserts an embedded object into your document, including formulas, 3D models, charts and OLE objects.

**Floating Frame**

Inserts a floating frame into the current document. Floating frames are used in HTML documents to display the contents of another file.

**File**

Inserts a file into the active slide. You can insert LibreOffice Draw or Impress files, or text from an HTML document or a text file.

**Header and Footer**

Adds or changes text in placeholders at the top and the bottom of slides and master slides.

**FORMAT MENU**

Contains commands for formatting the layout and the contents of your document.

**Clear Direct Formatting**

Removes direct formatting and formatting by character styles from the selection. You can use shortcut key (Ctrl+Shift+M) for this command.

**Character**

Changes the font and the font formatting for the selected characters. Similarly, you can use **Paragraph** command to Modifies the format of the current paragraph, such as indents and alignment.

**Bullets and Numbering**

Adds numbering or bullets to the current paragraph, and lets you edit format of the numbering or bullets.

**Page**

Sets page orientation, page margins, background and other layout options.

**Change Case**

Changes the case of characters in the selection. If the cursor is within word and no text is selected, then the word is the selection.

### Position and Size

Resizes, moves, rotates, or slants the selected object.

### Line

Sets the formatting options for the selected line.

### Area

Sets the fill properties of the selected drawing object.

### Text

Sets the layout and anchoring properties for text in the selected drawing or text object.

### Slide Design

Displays the Slide Design dialog, where you can select a layout scheme for the current slide. Any objects in the slide design are inserted behind objects in the current slide.

### Slide Layout

Opens a submenu with slide layouts.

### Group

Groups keep together selected objects, so that they can be moved or formatted as a single object.

## SLIDE SHOW MENU

Contains commands and options for running a presentation.

### Start From First Slide

This command is used for starts your slide show from first slide. You use F5 key for this command.

### Start From Current Slide

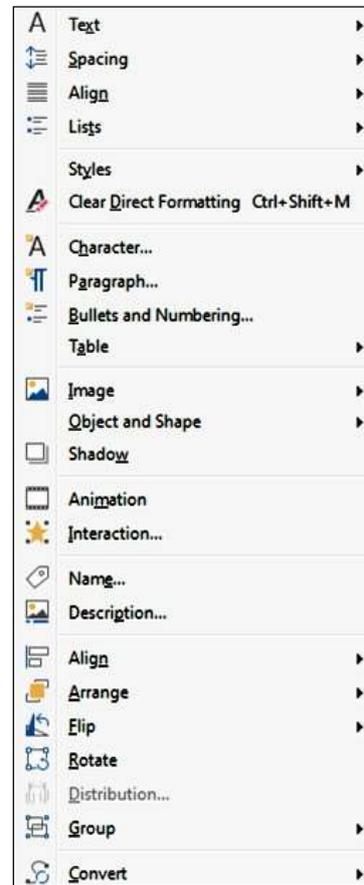
This command is used for starts your slide show from current slide. can use shortcut key (Shift+ F5) or this command.

### Rehearse Timings

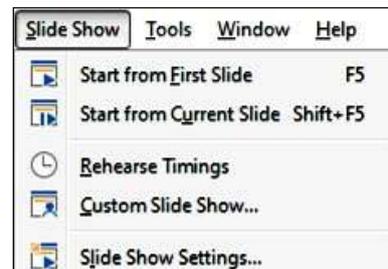
Starts a slide show with a timer in the lower left corner.

### Custom Slide Show

Defines a custom slide show using slides within the current presentation. You can then pick slides to meet the needs of your audience. You can create as many custom slide shows as you want.



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## Slide Show Settings

Defines settings for your slide show, including which slide to start from, the way you advance the slides, the type of presentation, and pointer options.

## TOOLS MENU

Contains spelling tools, a gallery of object art that you can add to your document, as well as tools for configuring menus, and setting program preferences.

### Spellcheck

Checks spelling manually. You can use shortcut key (F7) for this command.

### Language

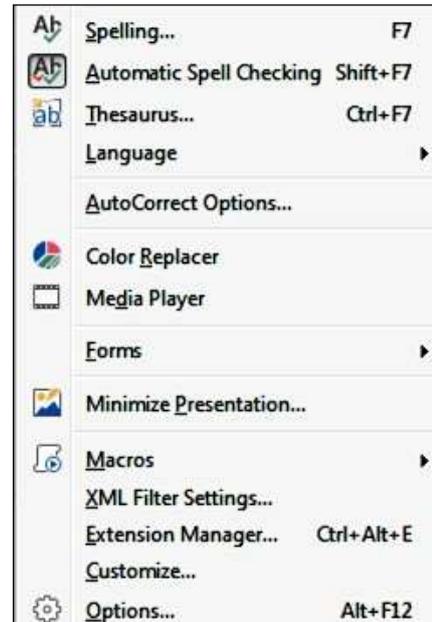
Opens a submenu where you can choose language specific commands.

### Gallery

Opens the Gallery deck of the Sidebar, where you can select images and audio clips to insert into your document.

### Color Replacer

Opens the Color Replacer dialog, where you can replace colors bitmap and meta file graphics.



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### Media Player

Opens the Media Player window where you can preview movie and sound files as well as insert these files into the current document.

### Macros

Lets you record or organize and edit macros.

### Extension Manager

The Extension Manager adds, removes, disables, enables, and updates LibreOffice extensions. You can use shortcut key (Ctrl+Alt+E) for this command.

### XML Filter Settings

Opens the XML Filter Settings dialog, where you can create, edit, delete, and test filters to import and to export XML files.

### AutoCorrect Options

Sets the options for automatically replacing text as you type.

## UPCISS

## Customize

Customizes LibreOffice menus, context menus, shortcut keys, toolbars, and macro assignments to events.

## Options

This command opens a dialog for a customized program configuration. You can use shortcut key (Alt+F12) for this command.

### Shortcut Keys for LibreOffice- Writer

Shortcut keys	Effect	Shortcut keys	Effect
F2	Formula Bar	Ctrl+0 (zero)	Apply Text Body paragraph style
Ctrl+F2	Insert Fields	Ctrl+1	Apply Heading 1 paragraph style
F3	Complete AutoText	Ctrl+2	Apply Heading 2 paragraph style
Ctrl+F3	Edit AutoText	Ctrl+3	Apply Heading 3 paragraph style
Shift+F4	Select next frame	Ctrl+4	Apply Heading 4 paragraph style
Ctrl+Shift+F4	Open Data Source View	Ctrl+5	Apply Heading 5 paragraph style
F5	Navigator on/off	Ctrl + Plus Key(+)	Calculates the selected text and copies
Ctrl+Shift+F5	go to page number	Shift+Enter	Line break without paragraph change
F7	Spellcheck	Ctrl+Enter	Manual page break
Ctrl+F7	Thesaurus	Ctrl+Shift+Enter	Column break in multi columnar texts
F8	Extension mode	Alt+Enter	Insert a new paragraph without numbering
Ctrl+F8	Field shadings on / off	Arrow Left	Move cursor to left
Shift+F8	Additional selection mode	Shift+Arrow Left	Move cursor with selection to the left
F9	Update fields	Ctrl+Shift+Arrow Left	Selecting to the left word by word
Ctrl+F9	Show fields	Arrow Right	Move cursor to right
Shift+F9	Calculate Table	Arrow Up	Move cursor up one line
Ctrl+F10	Nonprinting Characters on/off	Shift+Arrow Right	Move cursor with selection to the right
F11	Styles window on/off	Shift+Arrow Up	Selecting lines in an upwards direction
Shift+F11	Create Style	Arrow Down	Move cursor down one line
Ctrl+F11	Sets focus to Apply Style box	Shift+Arrow Down	Selecting lines in a downward direction
Ctrl+Shift+F11	Update Style	Home	Go to beginning of line
F12	Numbering on	Home+Shift	Go and select to the beginning of a line
Ctrl+F12	Insert or edit Table	End	Go to end of line
Shift+F12	Bullets on	End+Shift	Go and select to end of line
Ctrl+Shift+F12	Numbering / Bullets off	Ctrl+Home	Go to start of document
Ctrl+A	Select All	Ctrl+Home+Shift	Go and select text to start of document
Ctrl+J	Justify	Ctrl+End	Go to end of document
Ctrl+D	Double Underline	Ctrl+End+Shift	Go and select text to end of document
Ctrl+E	Centered	Ctrl+PageUp	Switch cursor between text and header

Ctrl+H	Find and Replace	Ctrl+PageDown	Switch cursor between text and footer
Ctrl+Shift+P	Superscript	Insert	Insert mode on/off
Ctrl+L	Align Left	PageUp	Screen page up
Ctrl+R	Align Right	Shift+PageUp	Move up screen page with selection
Ctrl+Shift+B	Subscript	PageDown	Move down screen page
Ctrl+Y	Redo last action	Shift+PageDown	Move down screen page with selection

### Shortcut Keys for Paragraphs and Heading Levels

Shortcut keys	Effect
Ctrl+Alt+Up Arrow	Move the active paragraph or selected paragraphs up one paragraph.
Ctrl+Alt+Down Arrow	Move the active paragraph or selected paragraphs down one paragraph.
Tab	The heading in format "Heading X" (X = 1-9) is moved down one level in the outline.
Shift+Tab	The heading in format "Heading X" (X = 2-10) is moved up one level in the outline.
Ctrl+Tab	At the start of a heading: Inserts a tab stop. Depending on the Window Manager in use, Alt+Tab may be used instead.

### Shortcut Keys for Tables in LibreOffice Writer

Shortcut Keys	Effect
Ctrl+A	If the active cell is empty: selects the whole table. Otherwise: selects the contents of the active cell. Pressing again selects the entire table.
Ctrl+Home	If the active cell is empty: goes to the beginning of the table. Otherwise: first press goes to beginning of the active cell, second press goes to beginning of the current table, third press goes to beginning of document.
Ctrl+End	If the active cell is empty: goes to the end of the table. Otherwise: first press goes to the end of the active cell, second press goes to the end of the current table, and third press goes to the end of the document.
Ctrl+Tab	Inserts a tab stop (only in tables). Depending on the Window Manager in use, Alt+Tab may be used instead.
Alt+Arrow Keys	Increases/decreases the size of the column/row on the right/bottom cell edge
Alt+Shift+Arrow Keys	Increase/decrease the size of the column/row on the left/top cell edge
Alt+Ctrl+Arrow Keys	Like Alt, but only the active cell is modified
Ctrl+Alt+Shift+Arrow	Like Alt, but only the active cell is modified
Ctrl+Shift+T	Removes cell protection from all selected tables. If no table is selected, then cell protection is removed from all of the tables in the document.

## Shortcut Keys for Moving and Resizing Frames, Graphics and Objects

Shortcut Keys	Effect
Esc	Cursor is inside a text frame and no text is selected: Escape selects the text frame. Text frame is selected: Escape clears the cursor from the text frame.
Alt+Arrow Keys	Move object.
Alt+Ctrl+Arrow Keys	Resizes by moving lower right corner.
Alt+Ctrl+Shift+Arrow Keys	Resizes by moving top left corner.
Ctrl+Tab	Selects the anchor of an object (in Edit Points mode).

### Shortcut Keys for LibreOffice- Calc

Shortcut Keys	Effect
Ctrl+Home	Moves the cursor to the first cell in the sheet (A1).
Ctrl+End	Moves the cursor to the last cell on the sheet that contains data.
Home	Moves the cursor to the first cell of the current row.
End	Moves the cursor to the last cell of the current row.
Shift+Home	Selects cells from the current cell to the first cell of the current row.
Shift+End	Selects cells from the current cell to the last cell of the current row.
Shift+Page Up	Selects cells from the current cell up to one page in the current column or extends the existing selection one page up.
Shift+Page Down	Selects cells from the current cell down to one page in the current column or extends the existing selection one page down.
Ctrl+Left Arrow	Moves the cursor to the left edge of the current data range. If the column to the left of the cell that contains the cursor is empty, the cursor moves to the next column to the left that contains data.
Ctrl+Right Arrow	Moves the cursor to the right edge of the current data range. If the column to the right of the cell that contains the cursor is empty, the cursor moves to the next column to the right that contains data.
Ctrl+Up Arrow	Moves the cursor to the top edge of the current data range. If the row above the cell that contains the cursor is empty, the cursor moves up to the next row that contains data.

Ctrl+Down Arrow	Moves the cursor to the bottom edge of the current data range. If the row below the cell that contains the cursor is empty, the cursor moves down to the next row that contains data.
Ctrl+Shift+Arrow	Selects all cells containing data from the current cell to the end of the continuous range of data cells, in the direction of the arrow pressed.
Ctrl+Page Up	Moves one sheet to the left. In the print preview: Moves to the previous print page.
Ctrl+Page Down	Moves one sheet to the right. In the print preview: Moves to the next print page.
Alt+Page Up	Moves one screen to the left.
Alt+Page Down	Moves one screen page to the right.
Ctrl+ /	where (/) is the division sign on the numeric key pad Selects the matrix formula range that contains the cursor.
Ctrl+Plus key	Insert cells (as in menu Insert - Cells)
Ctrl+Minus key	Delete cells (as in menu Edit - Delete Cells)

Shortcut Keys	Effect
Ctrl+F1	Displays the comment that is attached to the current cell
F2	Switches to Edit mode of the current cell. Press again to exit Edit mode.
Ctrl+F2	Opens the Function Wizard.
Shift+Ctrl+F2	Moves the cursor to the Input line where you can enter a formula for the current cell.
Ctrl+F3	Opens the Define Names dialog.
Shift+Ctrl+F4	Shows or Hides the Database explorer.
F4	Rearranges the relative or absolute references (for example, A1, \$A\$1, \$A1, A\$1) in the input field.
F5	Shows or hides the Navigator.
Shift+F5	Traces dependents.
Shift+F7	Traces precedents.
Shift+Ctrl+F5	Moves the cursor from the Input line to the Sheet area box.
F7	Checks spelling in the current sheet.
Ctrl+F7	Opens the Thesaurus if the current cell contains text.
F8	Turns additional selection mode on or off.
Ctrl+F8	Highlights cells containing values.

F9	Recalculates changed formulas in the current sheet.
Ctrl+Shift+F9	Recalculates all formulas in all sheets.
Ctrl+F9	Updates the selected chart.
F11	Opens Styles window where you can apply a formatting style to the contents of cell/current sheet.
Shift+F11	Creates a document template.
Shift+Ctrl+F11	Updates the templates.
F12	Groups the selected data range.
Ctrl+F12	Ungroups the selected data range.
Alt+Down Arrow	Increases the height of current row (only in OpenOffice.org legacy compatibility mode).
Alt+Up Arrow	Decreases the height of current row (only in OpenOffice.org legacy compatibility mode).
Alt+Right Arrow	Increases the width of the current column.
Alt+Left Arrow	Decreases the width of the current column.

#### Formatting Cells Using Shortcut Keys

Shortcut Keys	Effect
Ctrl+1 (not on the number pad)	Open Format Cells dialog
Ctrl+Shift+1 (not on the number pad)	Two decimal places, thousands separator
Ctrl+Shift+2 (not on the number pad)	Standard exponential format
Ctrl+Shift+3 (not on the number pad)	Standard date format
Ctrl+Shift+4 (not on the number pad)	Standard currency format
Ctrl+Shift+5 (not on the number pad)	Standard percentage format (two decimal places)
Ctrl+Shift+6 (not on the number pad)	Standard format

### Shortcut Keys for LibreOffice- Impress

Shortcut Keys	Effect
Esc	End presentation.
Spacebar or Right arrow or Down arrow or Page Down or Enter or Return or N	Play next effect (if any, else go to next slide).
Alt+Page Down	Go to next slide without playing effects.

[number] + Enter	Type a number of a slide and press Enter to go to the slide.
Left arrow or Up arrow or Page Up or Backspace or P	Play previous effect again.
Alt+Page Up	Go to the previous slide without playing effects.
Home	Jump to first slide in the slide show.
End	Jump to the last slide in the slide show.
Ctrl+ Page Up	Go to the previous slide.
Ctrl+ Page Down	Go to the next slide.
B or .	Show black screen until next key or mouse wheel event.
W or ,	Show white screen until next key or mouse wheel event.

#### Shortcut Keys in the Normal View

Shortcut Keys	Effect
Plus(+) Key	Zoom in.
Minus(-) Key	Zoom out.
Times(x) Key (number pad)	Fit page in window.
Divide(÷) Key (number pad)	Zoom in on current selection.
Shift+Ctrl+G	Group selected objects.
Shift+Ctrl+Alt+A	Ungroup selected group.
Ctrl+ click	Enter a group, so that you can edit the individual objects of the group. Click outside the group to return to the normal view.
Shift+Ctrl+ K	Combine selected objects.
Shift+Ctrl+ K	Split selected object. This combination only works on an object that was created by combining two or more objects.
Ctrl+ Plus key	Bring to Front.
Shift+Ctrl+ Plus key	Bring Forward.
Ctrl+ Minus key	Send Backward.
Shift+Ctrl+ Minus key	Send to Back.

#### Shortcut Keys when Editing Text

Shortcut Keys	Effect
Ctrl+Hyphen(-)	Soft hyphens; hyphenation set by you.

Ctrl+Shift+minus sign (-)	Non-breaking hyphen (is not used for hyphenation)
Ctrl+Shift+Space	Non-breaking spaces. Non-breaking spaces are not used for hyphenation and are not expanded if the text is justified.
Shift+Enter	Line break without paragraph change
Arrow Left	Move cursor to left
Shift+Arrow Left	Move cursor with selection to the left
Ctrl+Arrow Left	Go to beginning of word
Ctrl+Shift+Arrow Left	Selecting to the left word by word
Arrow Right	Move cursor to right
Shift+Arrow Right	Move cursor with selection to the right
Ctrl+Arrow Right	Go to start of next word
Ctrl+Shift+Arrow Right	Selecting to the right word by word
Arrow Up	Move cursor up one line
Shift+Arrow Up	Selecting lines in an upwards direction
Ctrl+Arrow Up	Move cursor to beginning of the previous paragraph
Ctrl+Shift+Arrow Up	Select to beginning of paragraph.
Arrow Down	Move cursor down one line
Shift+Arrow Down	Selecting lines in a downward direction
Ctrl+Arrow Down	Move cursor to end of paragraph. Next keystroke move cursor to end of next paragraph
Ctrl+Shift+Arrow Down	Select to end of paragraph. Next keystroke extends selection to end of next paragraph
Home	Go to beginning of line
Shift+Home	Go and select to the beginning of a line
End	Go to end of line
Shift+End	Go and select to end of line
Ctrl+Home	Go to start of text block in slide
Ctrl+Shift+Home	Go and select text to start of text block in slide
Ctrl+End	Go to end of text block in slide
Ctrl+Shift+End	Go and select text to end of document
Ctrl+Del	Delete text to end of word
Ctrl+Backspace	Delete text to beginning of word
Ctrl+Shift+Del	Delete text to end of sentence
Ctrl+Shift+Backspace	Delete text to beginning of sentence

Shortcut Keys	Effect
Arrow key	Moves the selected object or the page view in the direction of the arrow.
Ctrl+ Arrow Key	Move around in the page view.
Shift + drag	Constrains the movement of the selected object horizontally or vertically.
Ctrl+ drag	Hold down Ctrl and drag an object to create a copy of the object.
Alt Key	Hold down Alt to draw or resize objects by dragging from the center of the object outward.
Alt key+click	Select the object behind the currently selected object.
Alt+Shift+click	Select the object in front of the currently selected object.
Shift+click	Select adjacent items or a text passage. Click at the start of a selection, move to the end of the selection, and then hold down Shift while you click.
Shift+drag	Hold down Shift while dragging to resize an object to maintain the proportions of the object.
Tab key	Select objects in the order in which they were created.
Shift+Tab	Select objects in the reverse order in which they were created.
Escape	Exit current mode.
Enter	Activate a placeholder object in a new presentation (only if the frame is selected).
Ctrl+Enter	Moves to the next text object on the slide.
PageUp	Switch to the previous slide. No function on the first slide.
PageDown	Switch to the next slide. No function on the last slide.
Home/End	Set the focus to the first/last slide.
Enter	Change to Normal Mode with the active slide.

#### Function Keys for LibreOffice Impress

Shortcut Keys	Effect
F2	Edit text.
F3	Enter Group.
Ctrl+F3	Exit Group.
Shift+F3	Duplicate
F4	Position and Size
F5	View Slide Show.
F7	Spellcheck
Ctrl+F7	Thesaurus
F8	Edit Points.
Ctrl+Shift+F8	Fit text to frame.
F11	Styles
Ctrl+Shift+F5	Navigator