Subject: 103 DMA (Data Manipulation and Analysis)

UNIT-1: Concepts of worksheet: (Max.Weightage: 15%)

Fundamentals of Worksheet:

Concept of workbook,adding worksheet,cekk address,formulabar,

Column,rows,cell,Insert,delete,format cells,cell size(row-height,column weight),rename sheet,protect sheet,lock cell.

Cut, copy, paste, paste special, format painter, font size, font face,fill color, font color, font alignment

Alignment, indent, Number format, percent style, coma style,increase/decrease decimal

Insert picture, shapes

Insert Textbox, Header & Footer, Symbols

Save, save as, save file as csv, spell check, protect sheet and Workbook, Linking spread sheets.

Print, Quick print, Print preview

Split, Hide and freeze panes in worksheet.

FUNDAMENTALS OF

WORKBOOK1.1.1

~Concept of workbook

A workbook is a file that contains one or more worksheets to help you organize data. You can create a new workbook from a blank workbook or a template.

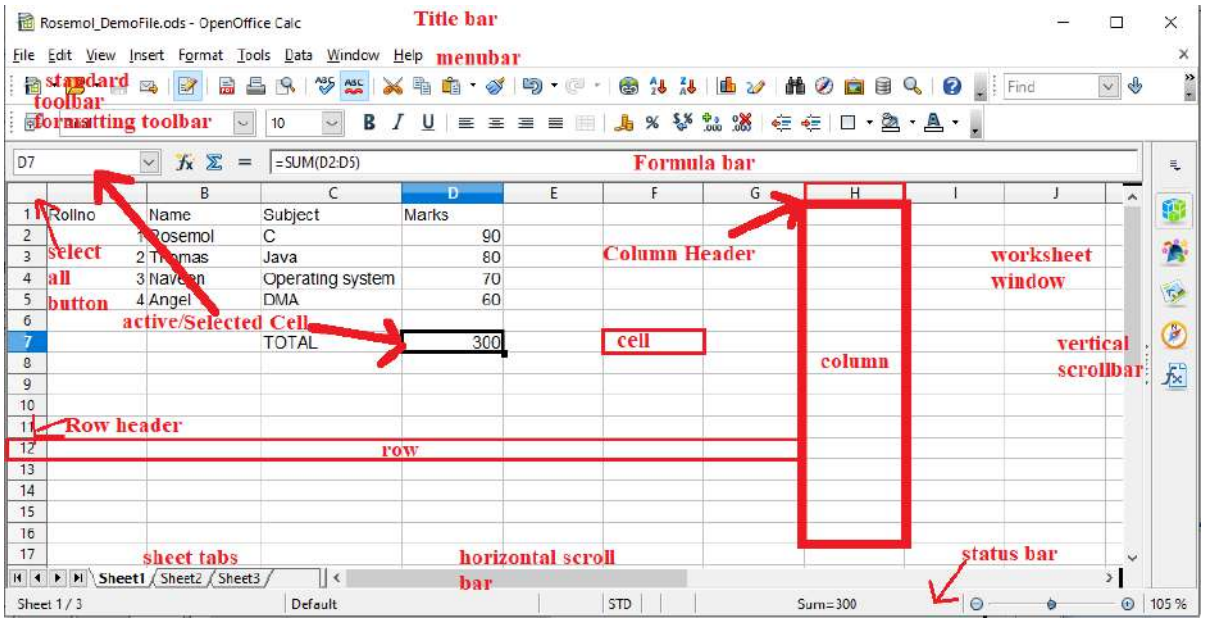
A spreadsheet or worksheet is a file made of rows and columns that help sort data, arrange data easily, and calculate numerical data. A spreadsheet software program has ability to calculate values using mathematical formulas and the data in cells.

A spreadsheet is a grid of boxes. Each box is called a cell. Each cell is located in a particular row and column in the grid. Each cell is available to store data.

The spreadsheet can contain 32000 rows and 255 columns.

More than one cell is called a range of cells. You can select a range of cells and move them, copy them, format them and so on as easily as a single cell.

Spreadsheets are used to store a table or group of tables .A table is a range of cells with related data. To store tables that are related you can stack the tables into sheets.



~Apache OpenOffice

Apache OpenOffice is the leading open-source office software suite for word processing, spreadsheets, presentations, graphics, databases and more. It is published by the non-profit Apache Software Foundation. OpenOffice works on all common computers. OpenOffice can work with ODF documents as well as documents from other common office software packages. It can be downloaded and used completely free of charge for any purpose.

~What are ODF documents?

ODF is an ISO International Standard format for office documents, created in 2006. ODF files have the following file extensions:

- *.odt (word processor documents) OpenDocument Text
- *.ods (spreadsheet documents) OpenDocument spreadsheet
- *.odp (presentation documents) OpenDocument presentation

The advantage of ODF is that it is not tied to any one office application suite. It is an open standard that any company can implement in their software. OpenOffice uses ODF format as its default document format. Most other word processors, of recent vintage, also have the ability to import and export ODF

~What is Calc?

Calc is the spreadsheet component of OpenOffice.org (OOo). You can enter data (usually numerical) in a spreadsheet and then manipulate this data to produce certain results.

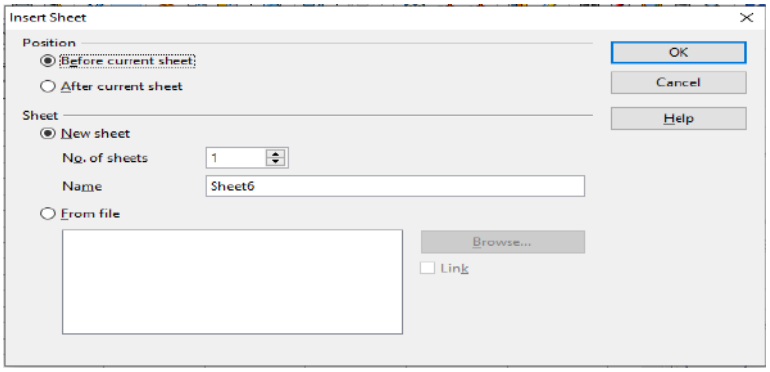
~Adding worksheet

Calc provides three sheets in every new spreadsheet document.

Following are the steps to add a sheet :
1. Click a sheet name that is located either before or after where you want to add new sheets.
2. Choose Insert->sheet to open insert sheet dialog box.

OR

1. Right click the sheet name
2. Choose insert from the shortcut menu that appears



3. Mark the box to position the new sheet either before or after the active sheet.
4. Indicate how many sheets you want to add.
5. Provide the name of the sheet.
6. Click on OK.

~Cell Address

A cell reference, or cell address, is an alphanumeric value used to identify a specific cell in a spreadsheet. Each cell reference contains one or more letters followed by a number. The letter or letters identify the column and the number represents the row.

In a standard spreadsheet, the first column is A, the second column is B, the third column is C, etc. These letters are typically displayed in the column headers at the top of the spreadsheet. If there are more than 26 columns, the 26th column is labelled Z, followed by AA for column 27, AB for column 28, AC for column 29, etc. Column 55 is labelled BA. Rows simply increment numerically from top to bottom starting with "1" for the first row.

Examples of cell references are listed below:

1. First column, sixth row: A6
2. sixth column, twentieth row: G20
3. Sixty-first column, three hundred forty-second row: BI342
4. One thousand column, two thousandth row: ALL2000

Cell references are helpful in two ways:

1) They provide an easy way to locate a specific value within a spreadsheet

2) They are used in creating formulas.

~ **Formula Bar**

The Formula Bar is where data or formulas you enter into a worksheet appear for the active cell. The Formula Bar can also be used to edit data or formula in the active cell. The active cell displays the results of its formula while we see the formula itself in the Formula Bar.You can also hide the Formula Bar entirely by going to the View menu and uncheck the Formula Bar option.

~ **Column**

A column is a vertical series of cells in a spreadsheet. Columns run vertically downward across the worksheet. A column is identified by a column header that is on the top of the column, from where the column originates. Column headers (column letter) are named as A, B, C, D, E, F, G, and H.

~ **Rows**

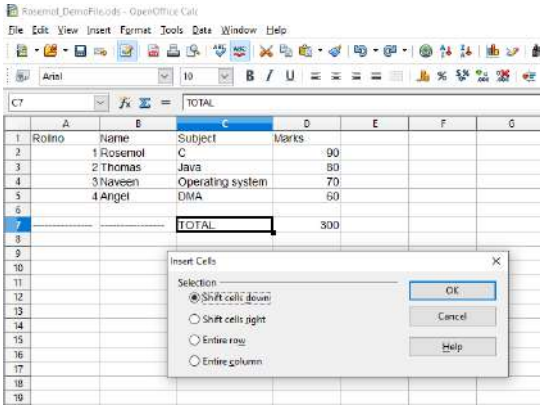
Rows run horizontally across the worksheet. A row is identified by the number that is on left side of the row, from where the row originates.

~ **Cells**

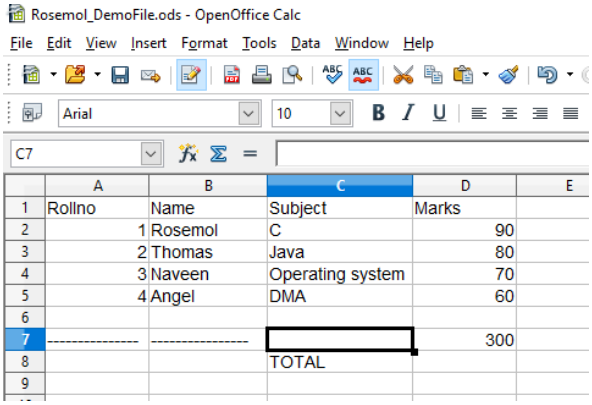
Cells are small boxes in the worksheet where we enter data. A cell is the intersection of a row and column. It is identified by row number and column header such as A1, A2.

~ **Insert Cell**

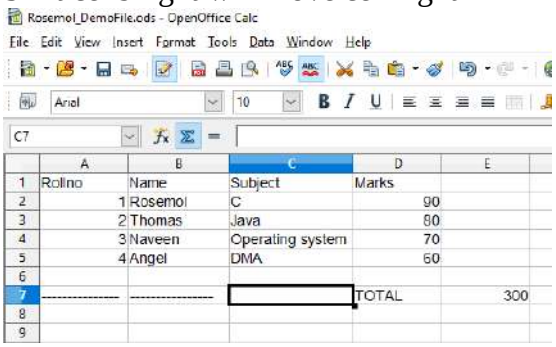
1. Select a cell
2. Choose Insert->Cells… or right click on cell and select insert… from context menu or pop up menu.
3. Insert Cells dialog box appears as shown in the figure



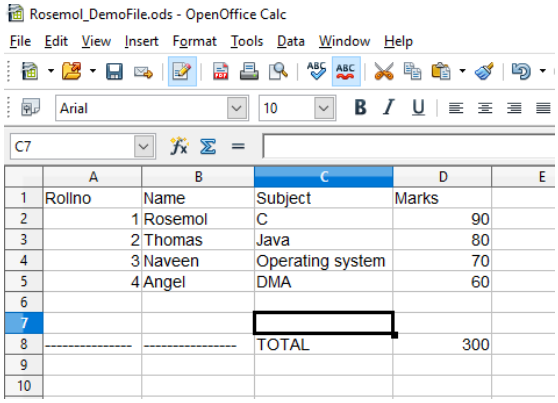
4. Shift cells down will move cell down



4. Shift cells right will move cell right

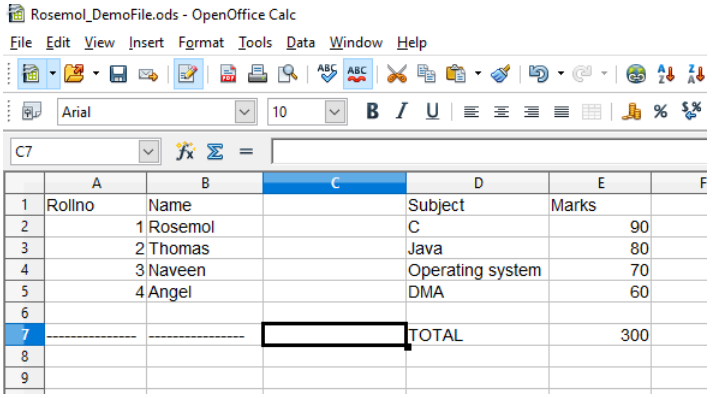


5. Entire row will add a new row



	A	B	C	D	E
1	Rollno	Name	Subject	Marks	
2	1	Rosemol	C	90	
3	2	Thomas	Java	80	
4	3	Naveen	Operating system	70	
5	4	Angel	DMA	60	
6					
7					
8	----------	----------	TOTAL	300	
9					
10					

6. Entire column will add a new column

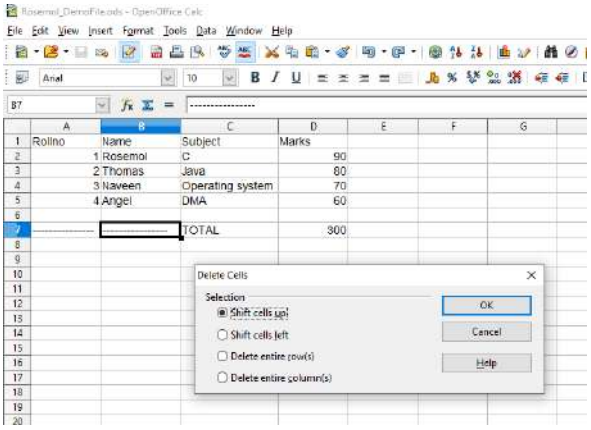


	A	B	C	D	E	F
1	Rollno	Name		Subject	Marks	
2		1	Rosemol	C	90	
3		2	Thomas	Java	80	
4		3	Naveen	Operating system	70	
5		4	Angel	DMA	60	
6						
7	----------	----------		TOTAL	300	
8						
9						

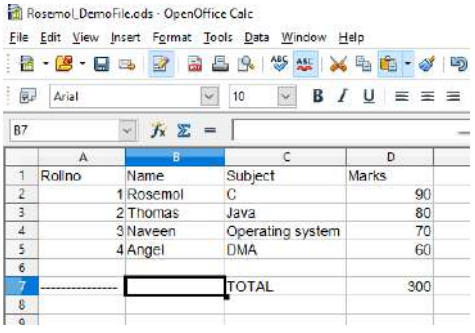
7. Click OK

~ **Delete Cell**

1. Select at least one cell you want to delete.
2. Choose Edit->Delete Cells… to open the Delete Cells dialog box.
3. Delete Cells dialog box appears as shown in the figure.

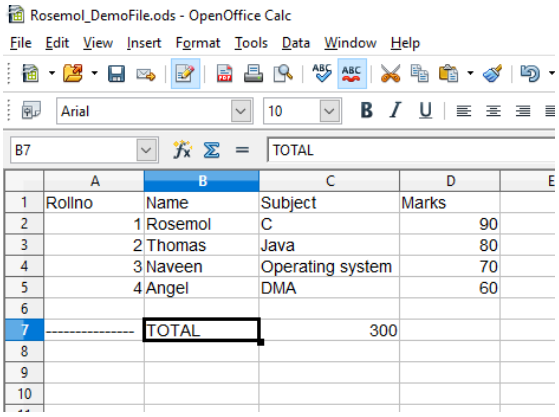


4. Shift cells up will move cells up



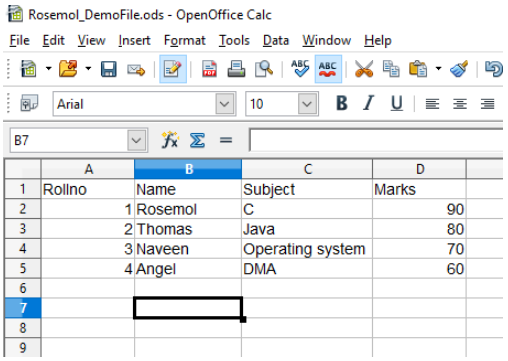
	A	B	C	D
1	Rollno	Name	Subject	Marks
2		1 Rosemol	C	90
3		2 Thomas	Java	80
4		3 Naveen	Operating system	70
5		4 Angel	DMA	60
6				
7	----------		TOTAL	300
8				

5. Shift cells left will move cells left



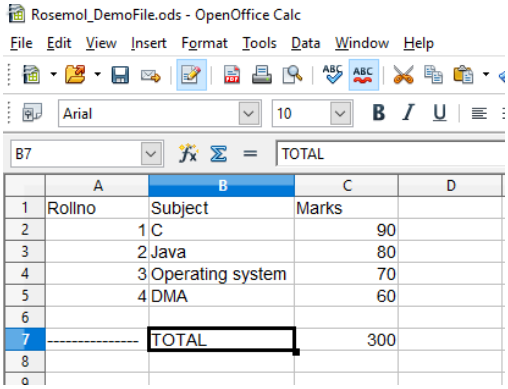
	A	B	C	D
1	Rollno	Name	Subject	Marks
2	1	Rosemol	C	90
3	2	Thomas	Java	80
4	3	Naveen	Operating system	70
5	4	Angel	DMA	60
6				
7	----------	TOTAL	300	
8				
9				
10				

6. Delete entire row will remove the entire row



	A	B	C	D
1	Rollno	Name	Subject	Marks
2	1	Rosemol	C	90
3	2	Thomas	Java	80
4	3	Naveen	Operating system	70
5	4	Angel	DMA	60
6				
7				
8				
9				

7. Delete entire column will remove the entire column



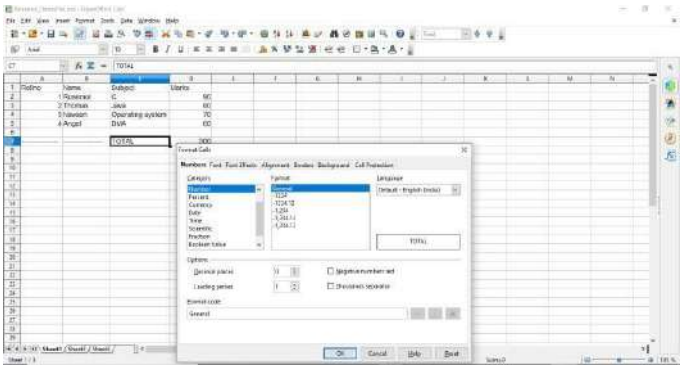
	A	B	C	D
1	Rollno	Subject	Marks	
2	1	C	90	
3	2	Java	80	
4	3	Operating system	70	
5	4	DMA	60	
6				
7	----------	TOTAL	300	
8				

8. Click OK.

Calc then renames all the columns or rows as though the deleted rows never existed.

~ Format cells

1. Select the cell or range of cells that you want to format.
2. Choose Format->Cells or right-click anywhere in the selected area, and choose Format Cells from the shortcut menu that appears.



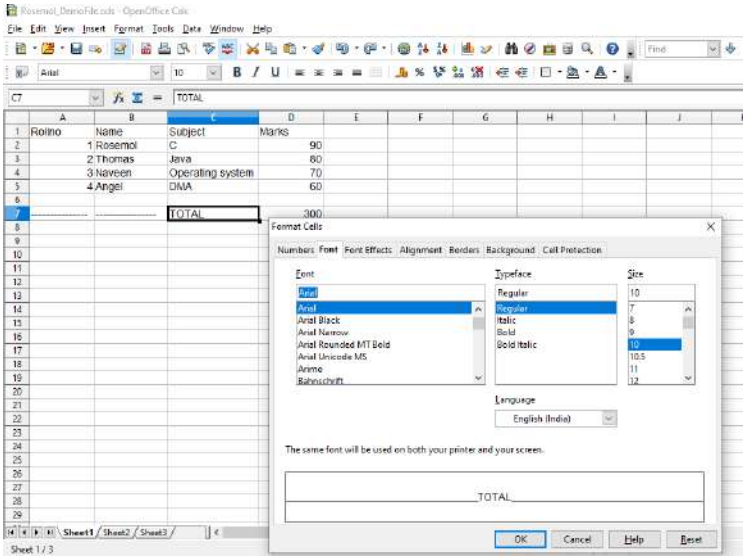
It has the following list of tabs to format the cell

Number

Number can be formatted as per our need like percent, currency, date, time. Decimal places can also be set. Leading zeros can be displayed

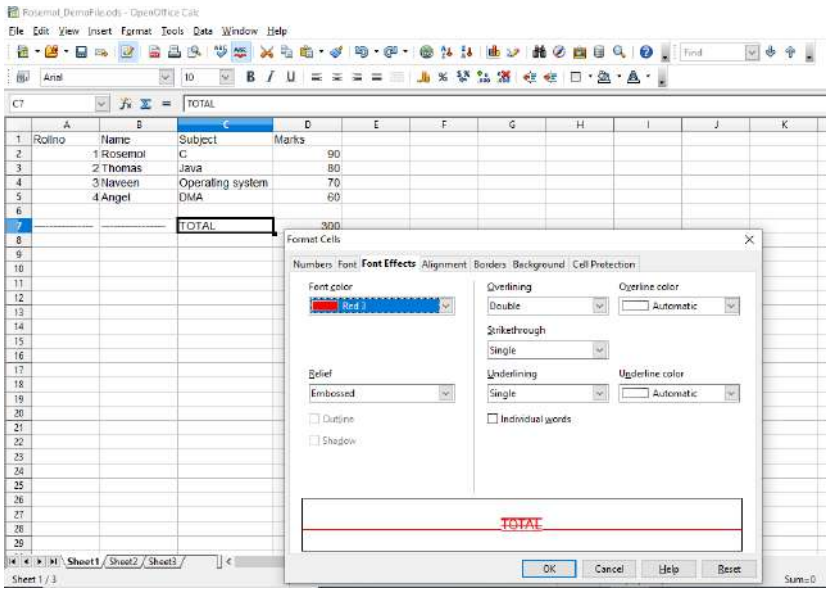
Font

Font tab allows to select the style of the font, font size. We can set font to be bold Italic as per our wish.

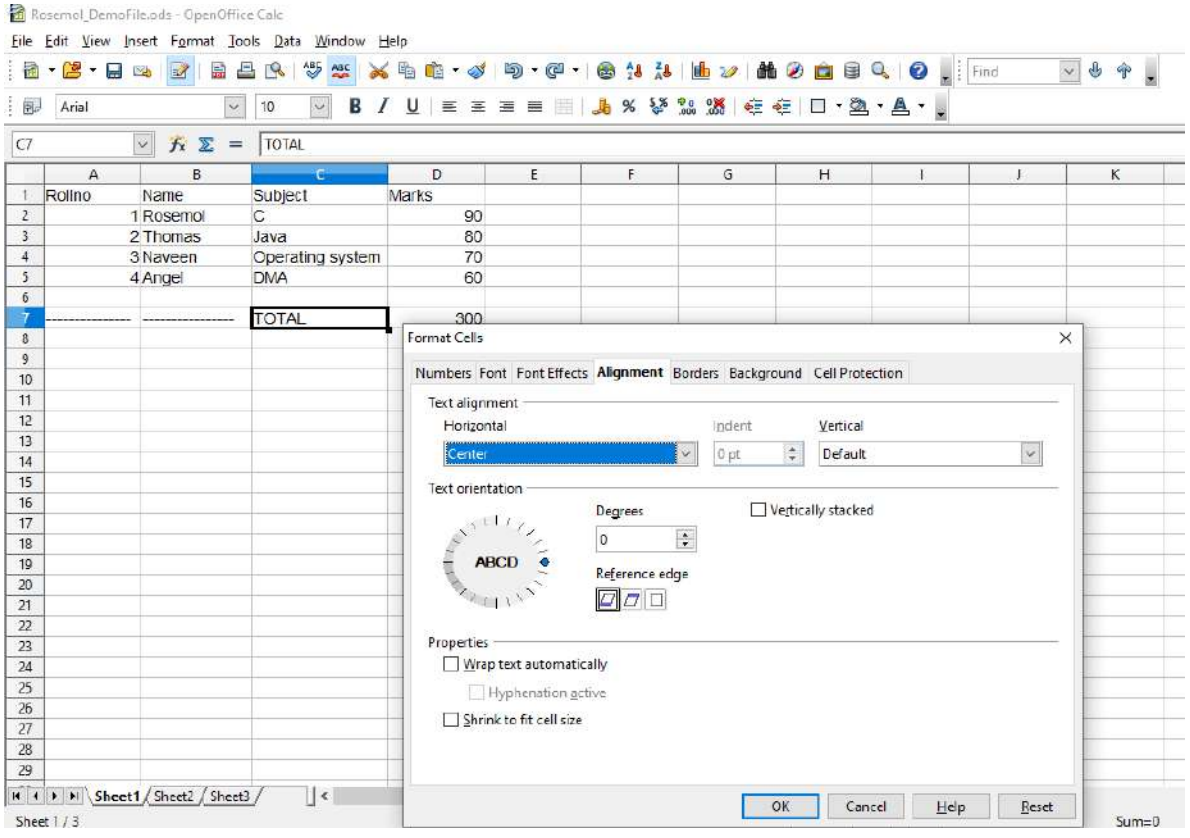


Font effects

Font colour, underline ,underline colour, shadow are various effects that can be given to font

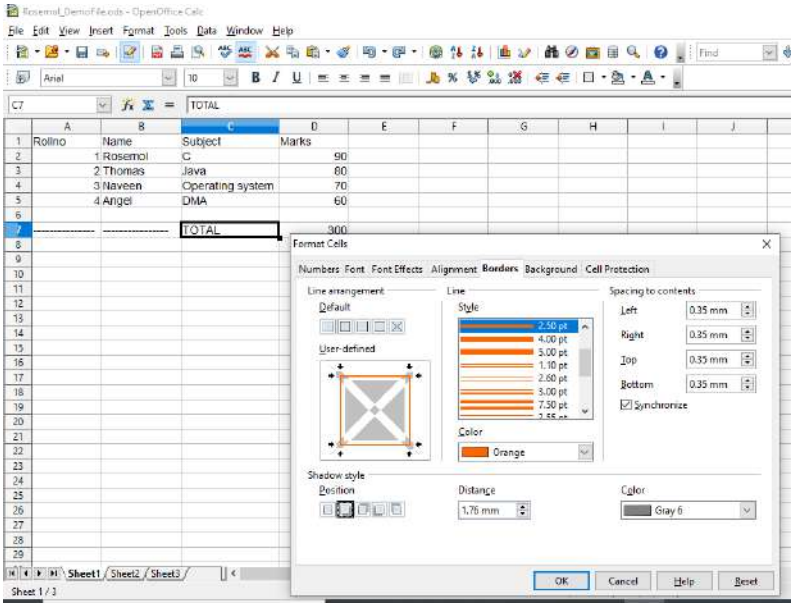

Rosemol_DemoFile.ods - OpenOffice Calc
File Edit View Insert Format Tools Data Window Help
Format Cells
Numbers Font Font Effects Alignment Borders Background Cell Protection
Font color
Overlining
Overline color
Strikethrough
Relief
Underlining
Underline color
Individual words
Outline
Shadow
TOTAL
OK
Cancel
Help
Reset

Alignment


Rosemol_DemoFile.ods - OpenOffice Calc
File Edit View Insert Format Tools Data Window Help
Arial
10
C7
TOTAL
Rollno Name Subject Marks
1 Rosemol C 90
2 Thomas Java 80
3 Naveen Operating system 70
4 Angel DMA 60
TOTAL 300
Format Cells
Numbers Font Font Effects Alignment Borders Background Cell Protection
Text alignment
Horizontal
Indent
Vertical
Center
0 pt
Default
Text orientation
Degrees
Vertically stacked
ABCD
Reference edge
Properties
Wrap text automatically
Hyphenation active
Shrink to fit cell size
OK
Cancel
Help
Reset
Sheet1 Sheet2 Sheet3
Sheet 1 / 3
Sum=0

Borders

Various border styles can be given to cell



Rollno	Name	Subject	Marks
1	Rosemol	C	90
2	Thomas	Java	80
3	Naveen	Operating system	70
4	Angel	DMA	60
----------	----------	TOTAL	300

Background

Background colour can be given to the selected cell

~**Cell size**: Changing column widths and row heights

To change column widths and row heights using the mouse, perform the following steps:

1. Click the line that separates two column names or row names. Choose the line that is to the right of the column that you want to resize (or below the row that you want to resize).

For example, the line between columns D and E resizes column D, and the line between rows 3 and 4 resizes row 3. The mouse pointer changes to a double-headed arrow.

2. While holding down the mouse button, drag the line to the desired column width or row height.

Double-click the line separating the two column names or row names that is to the right of the column that you want to resize (or below the row that you want to resize), Calc

optimizes the column width or row height according to the data that's currently in that column or row.

To change column widths and row heights using the main menu, follow these steps:
1. Click a cell in the column or row that you want to resize.
2. Choose Format->Column->Width to open the Column Width dialog box.
Or choose Format->Row->Height to open the Row Height dialog box.
3. Enter the desired size of your column or row.
4. Click OK.

~Renaming sheets

1. Select the sheet that you want to rename.
2. Choose Format->Sheet->Rename.
3. The Rename Sheet dialog box appears.
You can also right-click any sheet name tab and choose Rename from the shortcut menu that appears.
4. In the Rename Sheet dialog box, type in the new name
5. Click OK.

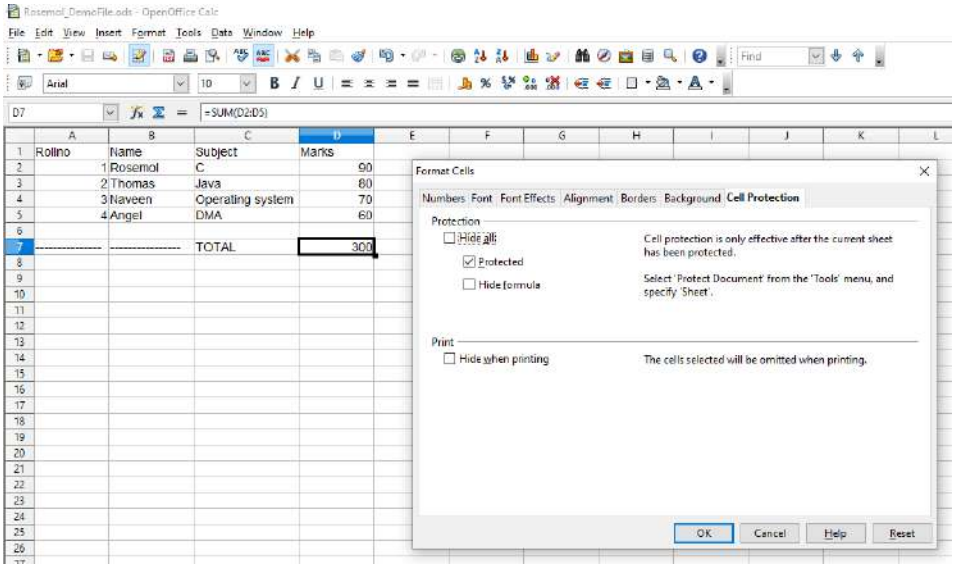
~Protection of a Sheet

To write-protect all of the cells of a sheet, you have to do the following:
1. Select Tools->Protect Document from the Menu Bar,
if you choose Sheet..., only your current sheet will be protected from writing,
If you choose Document..., your whole document (workbook) will be protected.
2. If you do not want to enter a password, you can simply click on the OK button to close the dialog window without typing anything.
However, if you choose a password, it will be requested every time you wish to modify the cells or the sheet.

To remove the protection
1. Choose Tools->Protect Document
2. Deselect the Sheet... or Document... option

~Lock cells

1. Select the cells that you want to specify the cell protection options for.
2. Choose Format -> Cells and click the Cell Protection tab.
3. Select the protection options that you want.
All options will be applied only after you protect the sheet from the Tools menu
-Uncheck Protected to allow the user to change the currently selected cells.
-Select Protected to prevent changes to the contents and the format of a cell.
-Select Hide formula to hide and to protect formulas from changes.
-Select Hide when printing to hide protected cells in the printed document. The cells are not hidden onscreen.
4. Click OK.



Copying, Pasting, Cutting, Dragging, and Dropping Your Cells

Now that you have your cells selected, it's child's play to cut and paste them, drag and drop them, and move them all around.

Copying and pasting cells

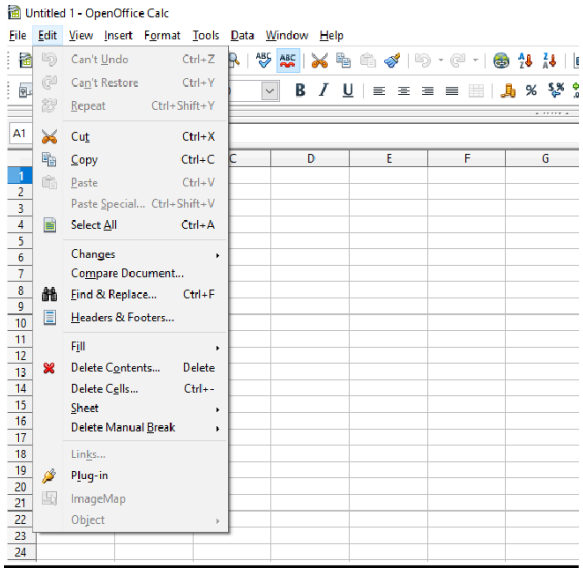
To copy and paste a range of cells, follow these steps:

1. Select the range of cells that you want to copy.
2. If the Function toolbar is not visible, choose View➪Toolbars➪ Function Bar to make it appear.
3. Choose Edit➪Copy, press Ctrl+C, or click the Copy icon on the Function toolbar.
4. Click the cell that you want to paste the upper-left corner of your range into.
5. Choose Edit➪Paste, press Ctrl+V, or click the Paste icon on the Function toolbar.

Cutting and pasting cells

To cut and paste a range of cells, follow these steps:

1. Select the range of cells that you want to copy.
2. Choose Edit➪Cut, press Ctrl+X, or click the Cut icon on the Function toolbar. (If the Function toolbar is not visible, choose View➪Toolbars➪ Function Bar to make it appear.)
3. Click the cell that you want to paste the upper-left corner of your range into.
4. Choose Edit➪Paste, press Ctrl+V, or click the Paste icon on the Function toolbar.



Dragging and dropping cells

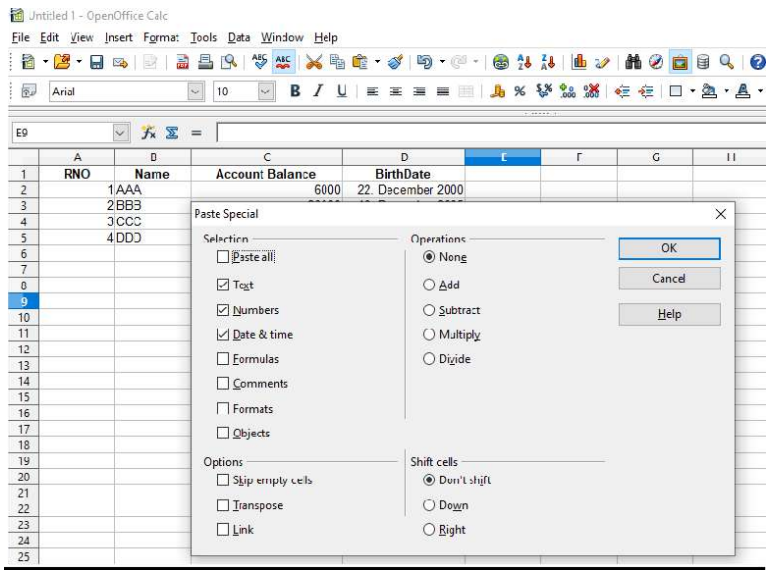
You may find this is the most enjoyable way to cut and paste. Once you know how to drag and drop, you may want to do nothing else.

1. Click the box in the status bar until the box displays STD. Dragging and dropping can only be performed with single cells or standard rectangular ranges.
2. Click and drag the active cell to create a selected range.
3. Click anywhere in the selected area, and drag the entire range to a new location.

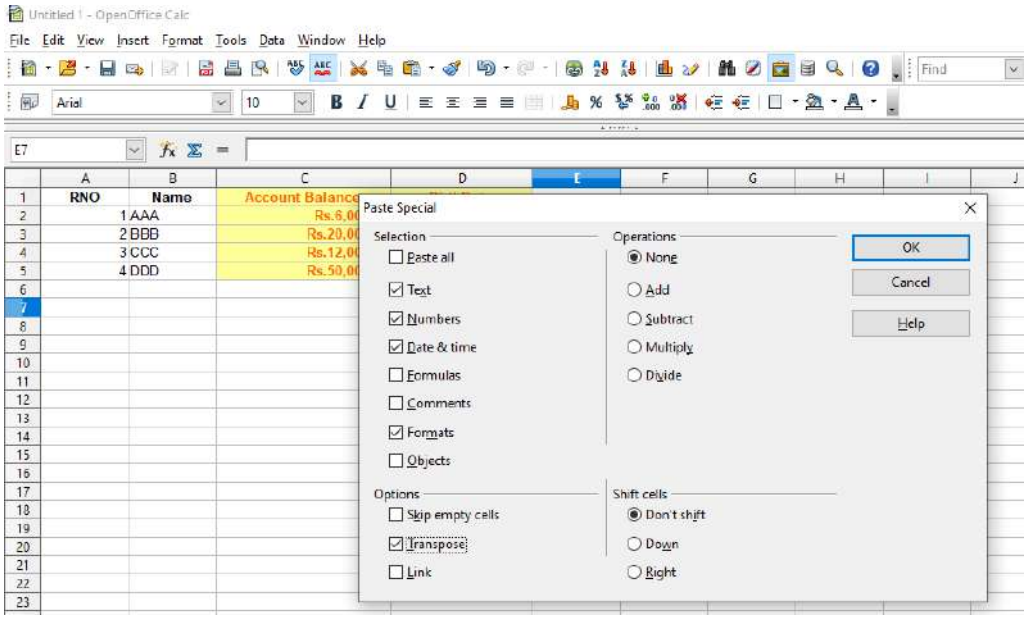
Paste Special

To copy and paste special a range of cells, follow these steps:

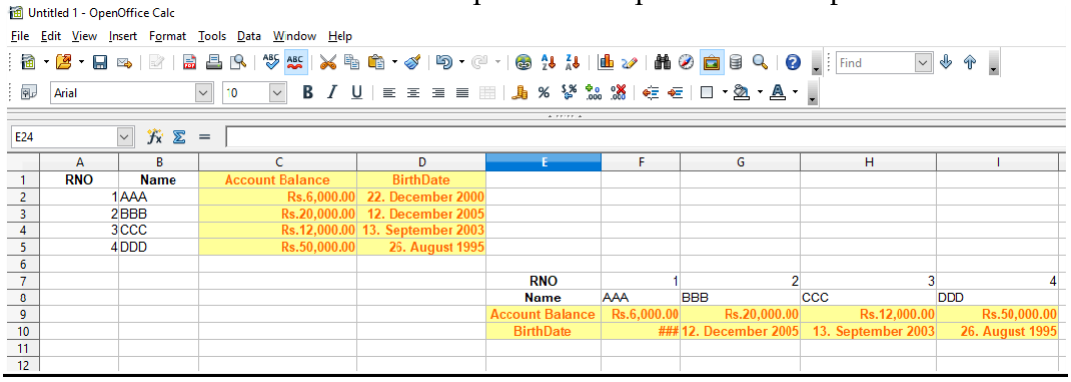
1. Select the range of cells that you want to copy.
2. Choose Edit➪Copy, press Ctrl+C, or click the Copy icon on the Function toolbar.
3. Click the cell that you want to paste the upper-left corner of your range into.
4. Choose Edit➪Paste Special or press Ctrl+Shift+V. Then dialog box appears as shown in the figure.



5. Check the ‘Selection’ you want like Text, Numbers, Formulas, Formats etc.
6. Check the ‘Options’ like Transpose, Skip empty cells etc.
7. Select the ‘Operations’ like Add, Subtract, Multiply etc.
8. Click OK.



Checked ‘Selection-Formats’ and ‘Options-Transpose’ will transpose the table with formatting.

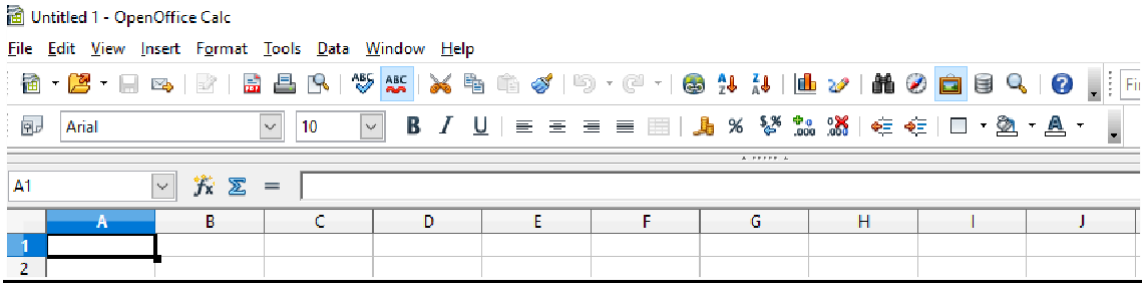


	A	B	C	D	E	F	G	H	I
1	RNO	Name	Account Balance	BirthDate					
2	1	AAA	Rs.6,000.00	22. December 2000					
3	2	BBB	Rs.20,000.00	12. December 2005					
4	3	CCC	Rs.12,000.00	13. September 2003					
5	4	DDD	Rs.50,000.00	26. August 1995					
6									
7					RNO	1	2	3	4
8					Name	AAA	BBB	CCC	DDD
9					Account Balance	Rs.6,000.00	Rs.20,000.00	Rs.12,000.00	Rs.50,000.00
10					BirthDate	###	12. December 2005	13. September 2003	26. August 1995
11									
12									

Adding style with the toobar

Want to change your font type, size, and style right from the toolbar? Calc makes it easy to format text. To choose your font type, size, and style, follow these steps:

1. Click the cell that you want to format. Or, select a range of cells — you can do this by clicking the active cell and dragging. The selected cells appear shaded.
2. Select your font from the list of fonts in the combo box on the Object toolbar. If the fonts combo box is not visible, choose View➪Toolbars➪ Object bar to make it appear.
3. Select the size of your type from the combo box on the Object toolbar. Calc resizes the rows to accommodate the larger or smaller sizes of type.
4. Choose your style. Choose either boldface, italic, or underline, or choose the color for your type.



Adding background colors

We never work on a spreadsheet without changing the background color of the table that we're working on. Somehow a soft golden glow on the screen is more soothing to the eyes than glaring white. To change the background color of the table, follow these steps:

1. Select the cells of your table.
2. Click the Background Color icon, and select your color from the pop-up swatches.

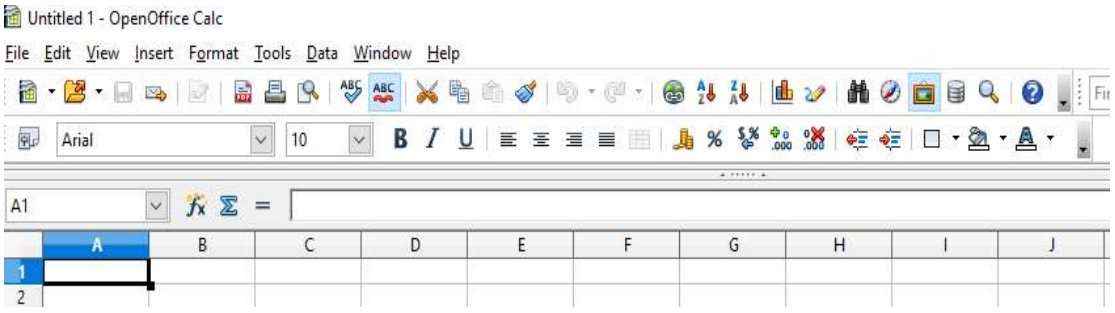
Choosing font colors

It's no secret that black is not our favorite color, so we never display our numbers in black. Of course, we don't want them in red, either, but the world is a rainbow of colors. It's fun to explore. To change your font colors, follow these steps:

1. Select the range of cells to be formatted.
2. Click the Font Color icon, and select your color from the pop-up swatches.

Format PaintBrush

1. Select the cell from which you wish to copy the format from.
2. Click on the Format Paintbrush icon in the toolbar.



3. When mouse look like a paint bucket, select the cell or range of cells to which you want to apply the format.
4. Let the mouse button go and the format will be applied to that cell or range of cells.

1.21.2

~**Alignment**

Alignment is how text flows in relation to the rest of the page (or column, table cell, text box, etc.). There are four main alignments: left, right, center, and justified.

- Left-aligned text is text that is aligned with a left edge.
- Right-aligned text is text that is aligned with a right edge.
- Centered text is text that is centered between two edges.
- Justification controls the spacing between words. A justified text increases the space between words to fill the entire line so that it is aligned with both the left and right edges.

1. Select the cell you want to align

2. On the formatting toolbar, select the alignment tool from formatting toolbar

~**Indentation**

In many documents, indenting is a good way to distinguish the start of a new paragraph, especially when there is no paragraph spacing.

To indent, hit the Tab key once on your keyboard at the start of a paragraph.

1. Select the text you want to indent

2. On the formatting toolbar, select the decrease or increase indent button to give spacing before the text

~**Number format**

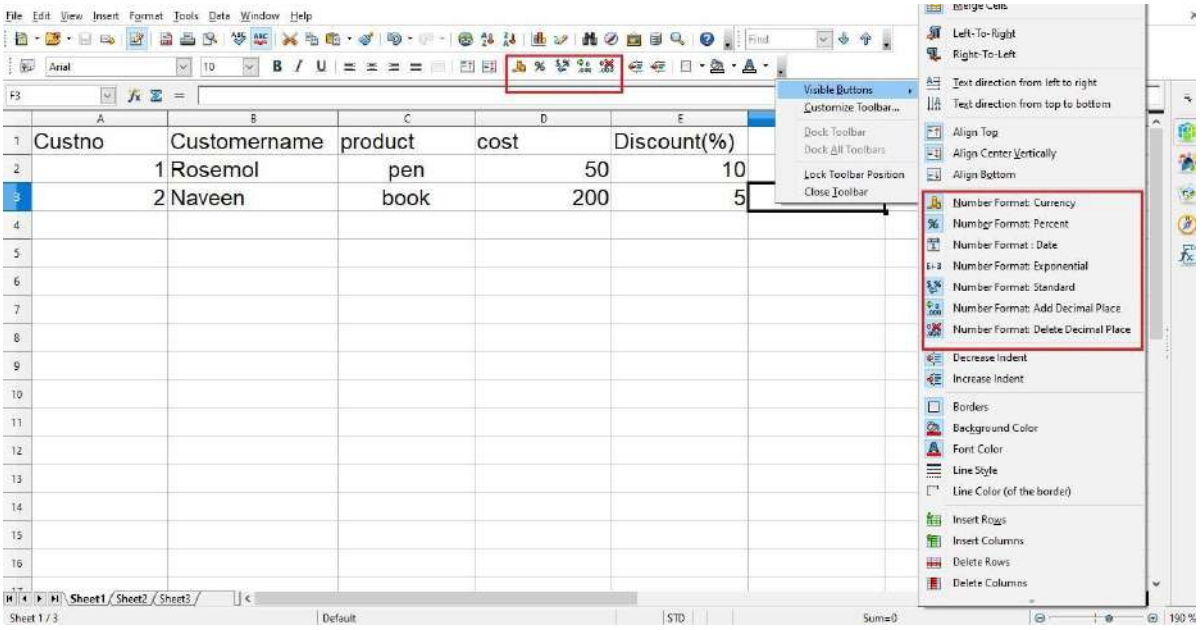
It allows to set the standard number format

~Percent Style

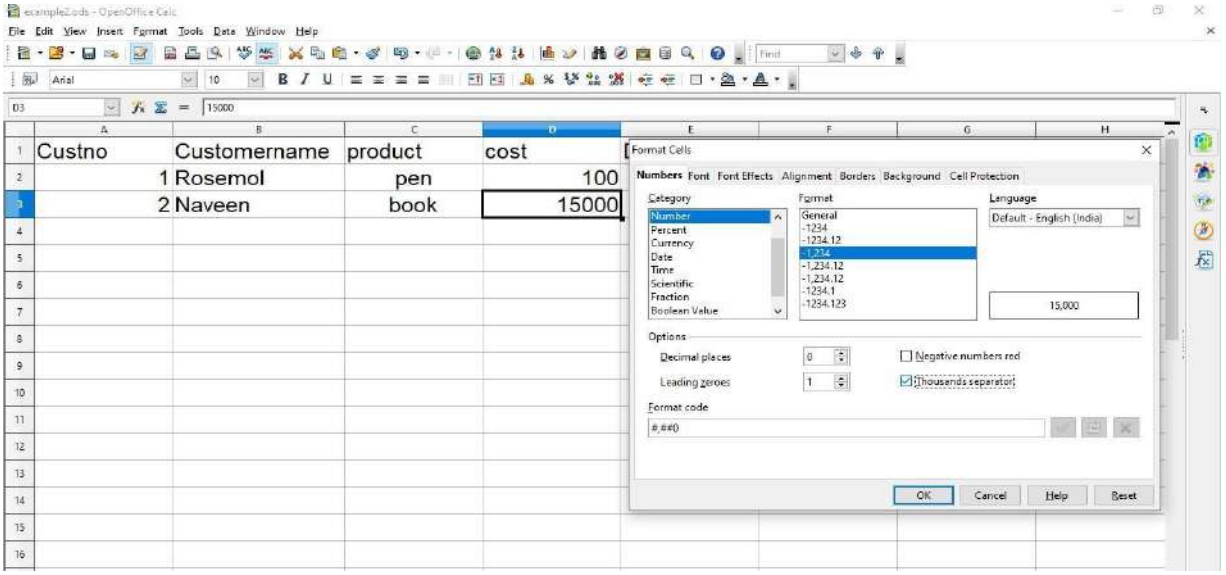
It Converts number into Percent and adds a % symbol

~Increase/Decrease Decimal

It increases or decreases the digits after the decimal point.



~Comma Style



1. Select the cell to give comma style.
2. Chose format>cells to open Format cells dialog box.
3. In the Numbers tab tick mark the 'Thousands Separator'.
4. Click on OK button.

~Insert Picture

Click in the location in the Calc document where you want the image to appear.

1. Choose Insert > Picture > From File from the menu bar, or click the Insert Picture icon on the Picture toolbar (f the toolbar is visible).
2. In the Insert Picture dialog, navigate to the file to be inserted, select it, and click Open.

~Insert Shapes

1. Open an OpenOffice Draw document, and look for the "Drawing" toolbar. This toolbar has shapes on it. If you don't see the toolbar, click "View" followed by "Toolbars" and "Drawing."
2. Click one of the toolbar's shapes to turn your cursor into a crosshair. Click inside your document, hold down your left mouse button and drag the cursor down towards the right to draw your shape. Release the mouse button when the shape reaches the size you desire.
3. Click the shape, hold down your left mouse button and drag the shape to the place on the document where you want it to appear. Resize the shape by clicking and dragging one of the handles along the shape's edge.

~Insert TextBox

1. Click on the Text icon  on the Drawing toolbar. If the toolbar with the text icon is not visible, choose View > Toolbars > Drawing.
2. Click and drag to draw a box for the text on the slide. Do not worry about the vertical size and position—the text box will expand if needed as you type.
3. Release the mouse button when finished. The cursor appears in the text box, which is now in edit mode (gray hashed border with green resizing handles).
4. Type or paste your text in the text box.
5. Click outside the text box to deselect it.

You can move, resize, and delete text boxes

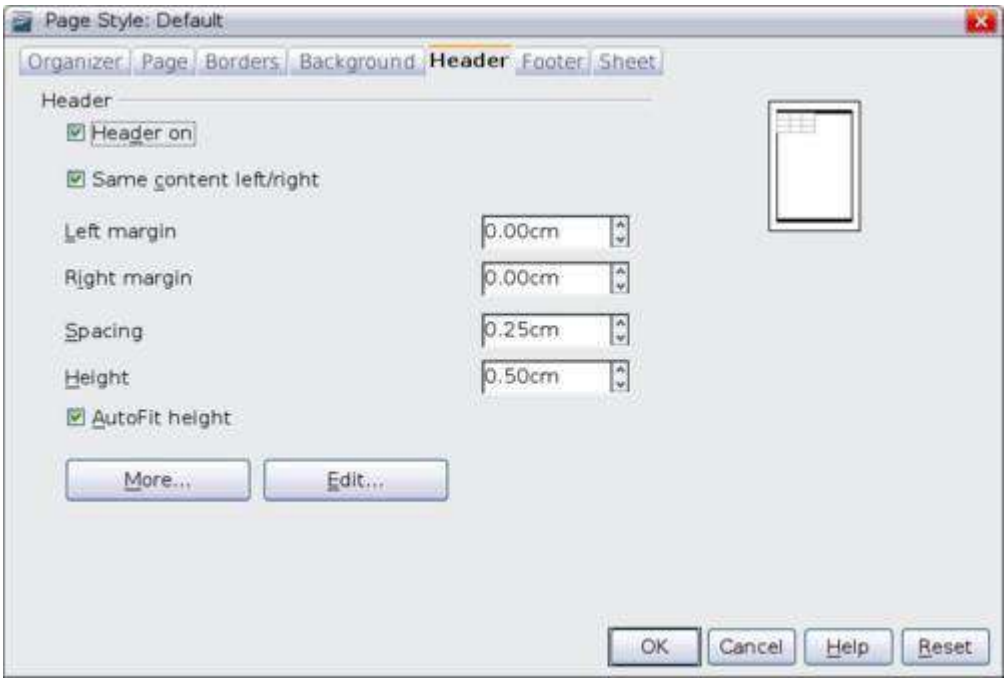
~Insert Header & Footer

Headers and footers are predefined pieces of text that are printed at the top or bottom of a sheet outside of the sheet area. A header is the top margin of each page, and a footer is the bottom margin of each page. Headers and footers are useful for including material that you want to appear on every page of a document such as your name, the title of the document, or page numbers.

Setting a header or a footer

To set a header or footer:

1. Navigate to the sheet that you want to set the header or footer for. Select Format > Page.
2. Select the Header (or Footer) tab.
3. Select the Header on option.



Header dialog

From here you can also set the margins, the spacing, and height for the header or footer. You can check the AutoFit height box to have the height of the header or footer automatically adjust.

Margin

Changing the size of the left or right margin adjusts how far the header or footer is from the side of the page.

Spacing

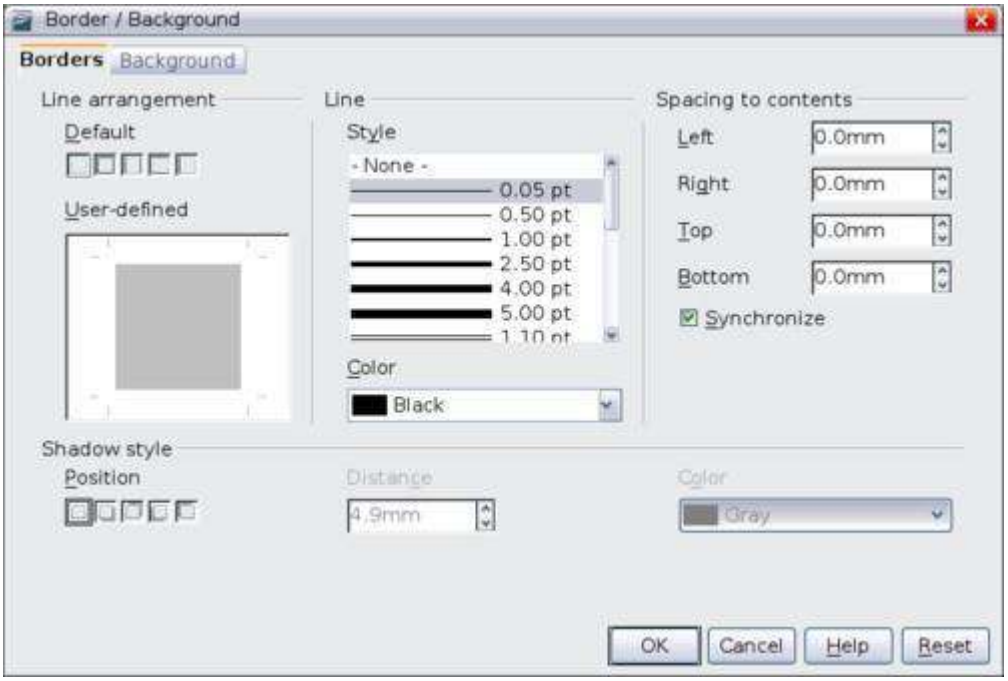
Spacing affects how far above or below the sheet the header or footer will print. So, if spacing is set to 1.00", then there will be 1 inch between the header or footer and the sheet.

Height

Height affects how big the header or footer will be.

Header or footer appearance

To change the appearance of the header or footer, click More.



Header/Footer Border/Background

From this dialog you can set the background and border of the header or footer.

Setting the contents of the header or footer

The header or footer of a Calc spreadsheet has three columns for text. Each column can have different contents.

To set the contents of the header or footer, click the Edit button in the header or footer dialog shown below to display the dialog shown below.

Edit contents of header or footer

Areas

Each area is independent and can have different information in it.

Header

You can select from several preset choices in the Header drop-down list, or specify a customheader using the buttons below. (If you are formatting a footer, the choices are the same.)

Custom header

Click in the area (Left, Center, Right) that you want to customize, then use the buttons to addelements or change text attributes.

 Opens the Text Attributes dialog.

 Inserts the total number of pages.

 Inserts the File Name field.

 Inserts the Date field.

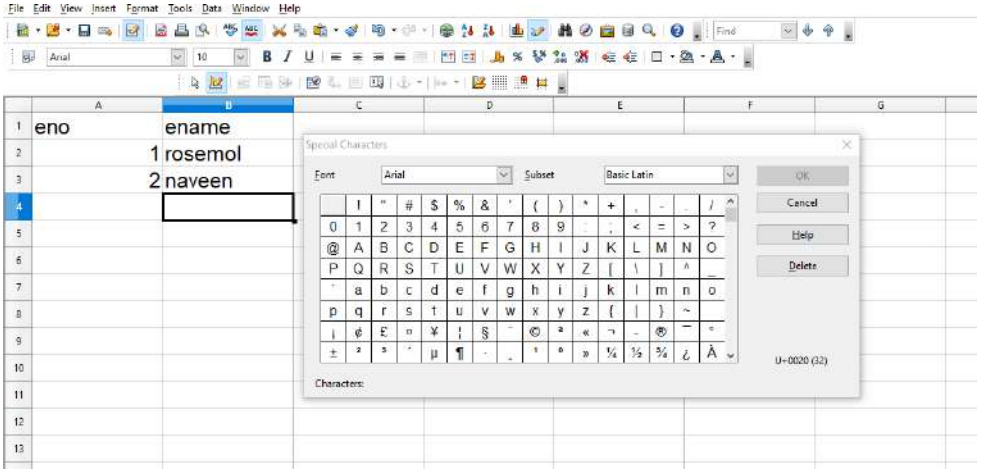
 Inserts the Sheet Name field.

 Inserts the Time field.

 Inserts the current page number.

~Insert Symbols

1. Place the cursor in the location where you want the symbol to appear.
2. On the Insert menu select Special Character.
3. In the dialog that appears, all the available characters in the current fonts will be displayed.
4. Select a character by clicking on it. If you do not see the desired character, it may not be available in the current font. If it is not there, try changing fonts. Choose Symbol from the Font list.
5. After selecting one or more characters, click OK to insert the characters at the location of the text cursor.



1.2.3

Saving a spreadsheets

Spreadsheets can be saved in the following three ways.

From the menu bar

Click **File** and then select **Save** (or **Save All** or **Save As**).

From the toolbar

Click on the **Save** button on the Function bar. If the file has been saved and no subsequent changes have been made, this button is grayed-out and unselectable.

From the keyboard

Use the key combination *Control+S*.

If the spreadsheet has been previously saved, then saving will overwrite the existing copy without opening the Save As dialog. If you want to save the spreadsheet in a different location or with a different name, then select **File > Save As**.

Password protection

To protect an entire document from being viewable without a password, use the option on the Save As dialog box to enter a password.

On the Save As dialog box, select the **Save with password** option, and then click **Save.** You will receive a prompt to type the same password in two fields. Click OK to save the document password-protected. If the passwords do not match, you receive the prompt to enter the password again.

Saving a document automatically

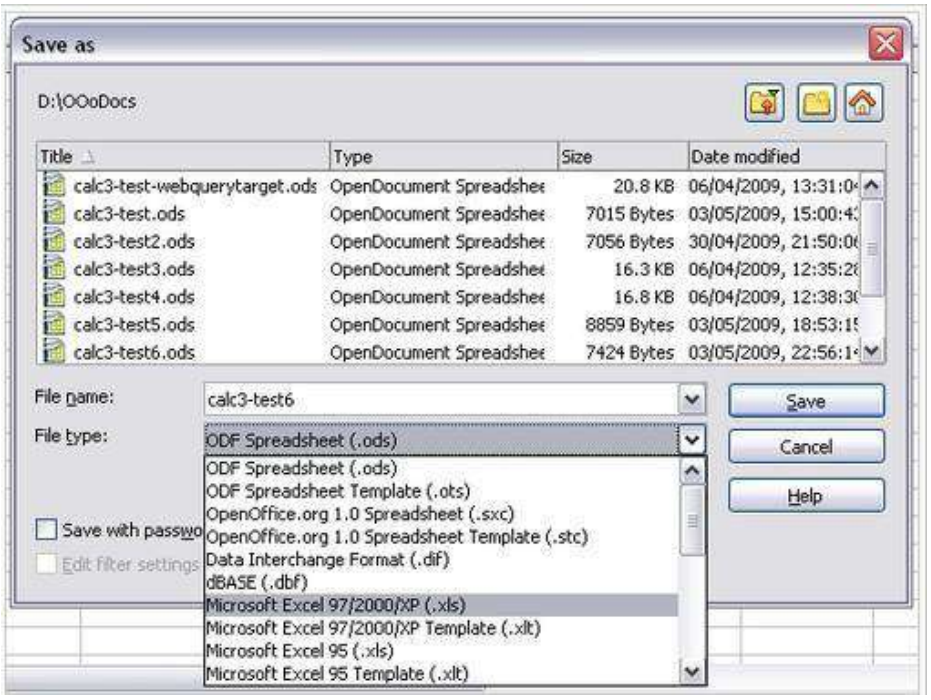
You can choose to have Calc save your spreadsheet automatically at regular intervals. Automatic saving, like manual saving, overwrites the last saved state of the file. To set up automatic file saving:

1. Select **Tools > Options > Load/Save > General**.
2. Click on **Save AutoRecovery information every**. This enables the box to set the interval. The default value is 30 minutes. Enter the value you want by typing it or by pressing the up or down arrow keys.

Saving as a Microsoft Excel document

Some users of Microsoft Excel may be unwilling or unable to receive *.ods files In this case, you can save a document as a Excel file.

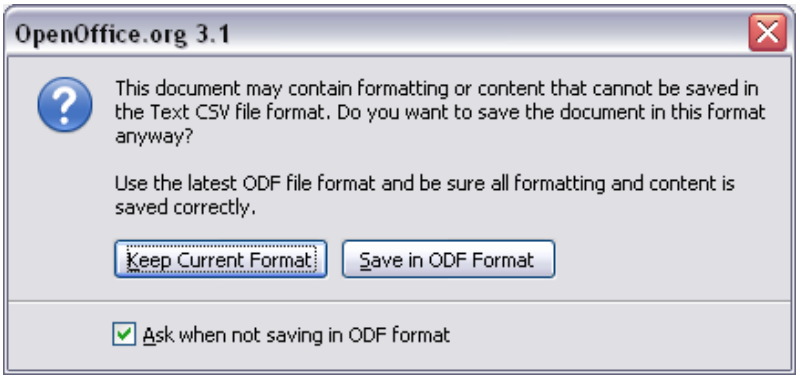
1. **IMPORTANT**—First save your spreadsheet in the file format used by OpenOffice.org, *.ods. If you do not, any changes you made since the last time you saved will only appear in the Microsoft Excel version of the document.
2. Then click **File > Save As**.
3. On the Save As dialog, in the **File type** (or **Save as type**) drop-down menu, select the type of Excel format you need. Click **Save**.



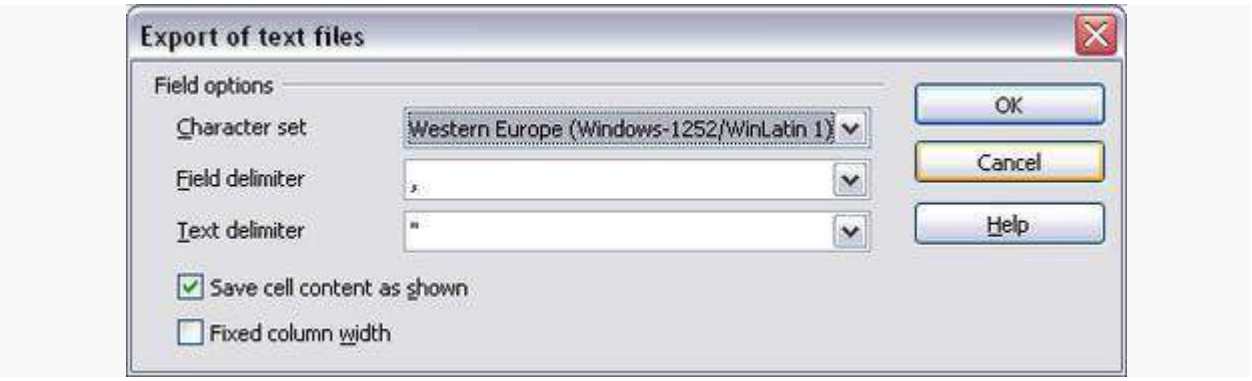
Saving as a CSV file

To save a spreadsheet as a comma separated value (CSV) file:

1. Choose **File > Save As**.
2. In the File name box, type a name for the file.
3. In the File type list, select **Text CSV** (comma-separated values **file)**, and click **Save**.You may see the message box shown below. Click **Keep Current Format**.



4. In the Export of text files dialog, select the options you want. Click **OK**.

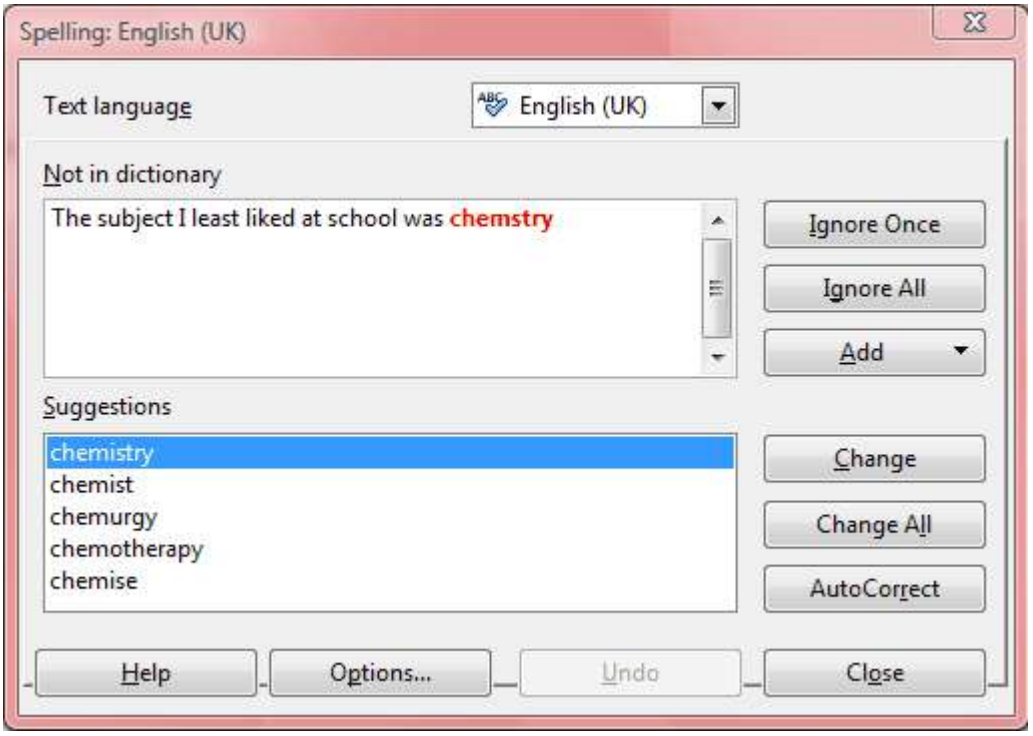


Spell-checking

To toggle the Automatic Spellchecking feature on or off, simply click the Automatic Spellchecking icon on the Main toolbar.

You also have the option to spell-check the entire document with the help of a dialog box and an automatic dictionary that suggests revisions. Just click the Spellchecking icon on the Main toolbar or choose Tools⇨Spelling…⇨ Check to open the Spellcheck dialogbox.
The spell check dialog box has several useful options for dealing with misspelled words in a document.

1. **Ignore Once** — Clicking Ignore Once causes the spell checker to ignore this one instance of the misspelled word and continue on to the next misspelled word.
2. **Ignore All** — Ignore All ignores the current instance of the misspelled word as well as all future instances. Ignore All essentially "tricks" the spell checker into thinking the word is in the dictionary; however, the next time a spell check dialog box is opened, it will not remember these settings.
3. **Add to Dictionary** — Clicking Add to Dictionary will add the currently misspelled word to the user's dictionary.
4. **Change To** — If end users want to manually edit the misspelled word, they can enter a word to replace the misspelled word in this text box.
5. **Change** — Upon clicking this button, the misspelled word in the Not in Dictionary box will be replaced with the word in the Change To box. This will replace only the current instance of the word.
6. **Change All** — Clicking Change All will replace all occurrences of the misspelled word in the entire document to the word in the Change To box.
7. **Suggestions** — The list in the Suggestions box represents all of the possible words that the end user may have misspelled. Selecting one of these words will place it in the Change To box.
8. **Undo button** - Removes the last change made. The Undo button can be pressed several times to remove the last several changes.



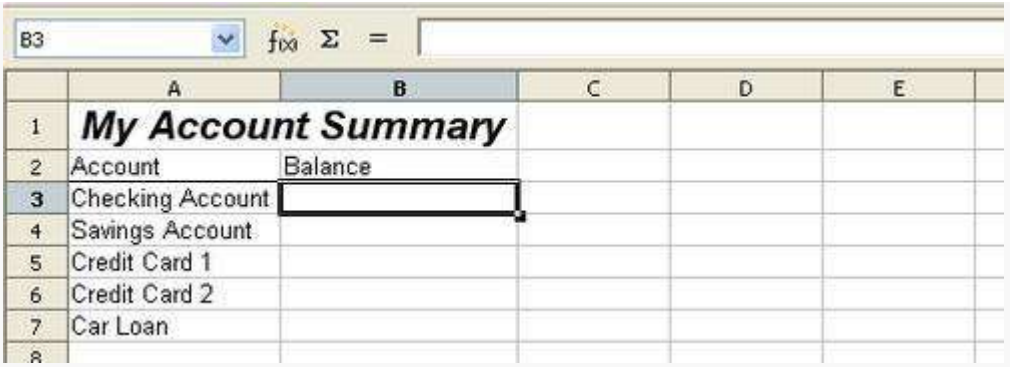
Linking spread sheets

On the *Summary* sheet we display the balance from each of the other sheets. If you copy the example above onto each account, the current balances will be in cell F3 ofeach sheet.

There are two ways to reference cells in other sheets: by entering the formula directlyusing the keyboard or by using the mouse. We will look at the mouse method first.

Creating the reference with the mouse

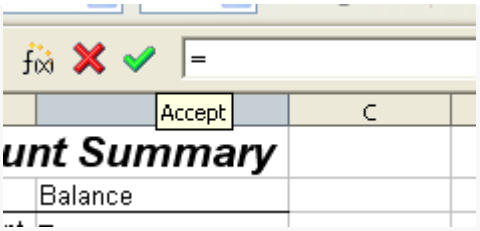
On the *Summary* sheet, set up a place for all five account balances, so we know whereto put the cell reference. The figure below shows a summary sheet with a blank Balance column. We want to place the reference for the checking account balance in cell B3.



Blank summary

To make the cell reference in cell B3, select the cell and follow these steps.

1. Click on the **=** icon next to the input line. The icons change and an equals signappears in the input line as shown below.

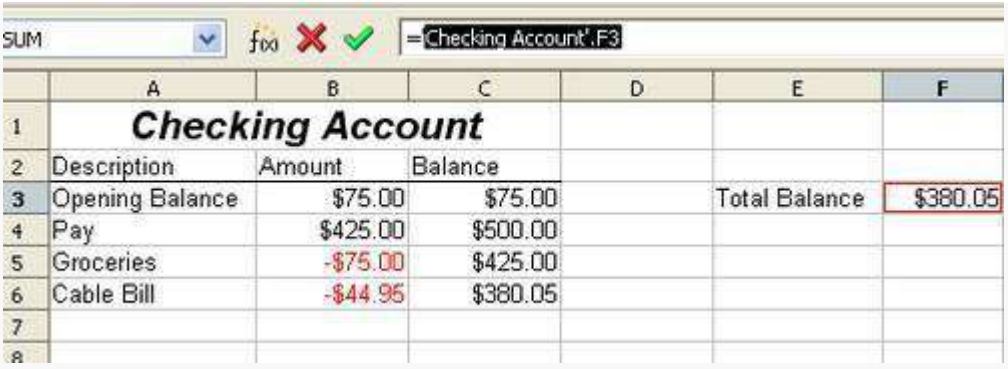


Equal sign in input line

2. Now, click on the sheet tab for the sheet containing the cell to be referenced. Inthis case, that is the *Checking Account* sheet as shown below.

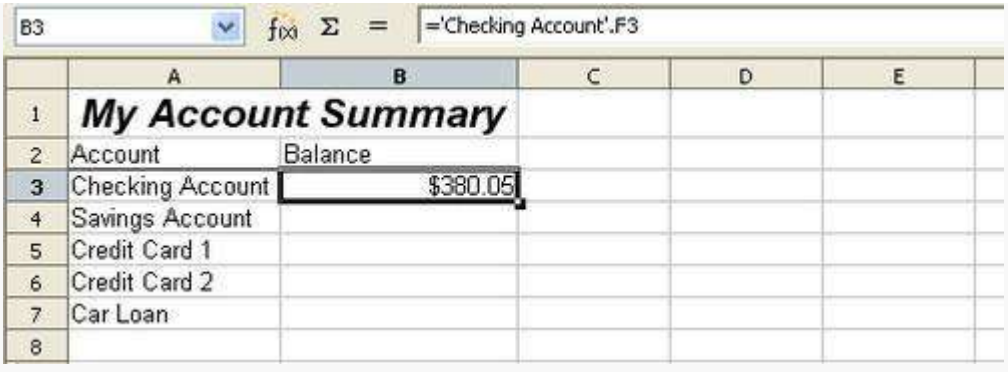
Click on the checking account tab

3. Click on cell F3 (where the balance is) in the *Checking Account* sheet. The phrase 'Checking Account'.F3 should appear in the input line as shown below.



Cell reference selected

4. Click the green checkmark in the input line to finish.
5. The *Summary* sheet should now look like the figure below.



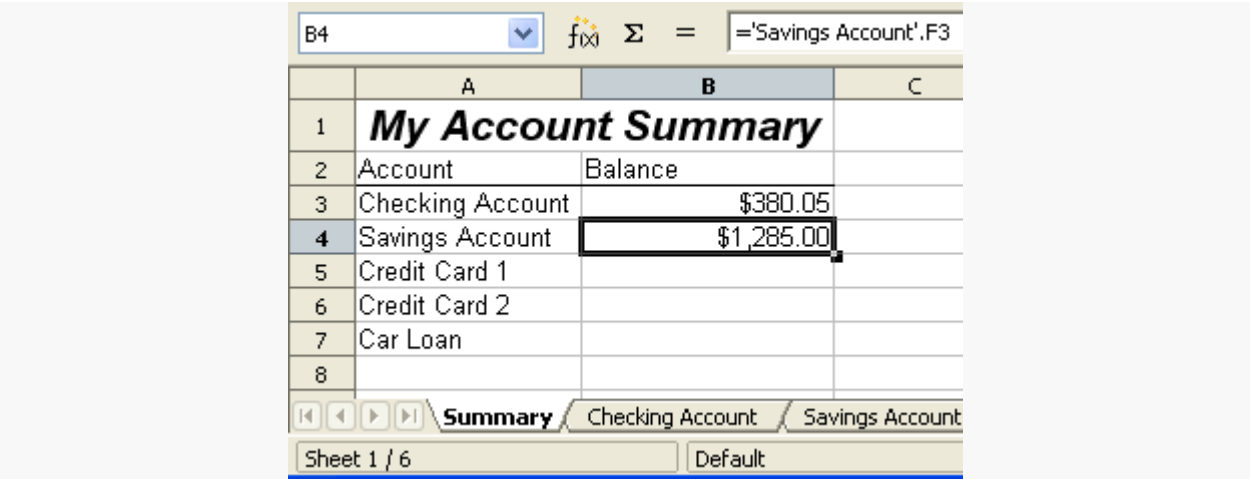
Finished checking account reference

Creating the reference with the keyboard

From the figure, you can deduce how the cell reference is constructed. The reference has two parts: the sheet name (*'Checking Account'*) and the cell reference (*F3*). Notice that they are separated by a period.

The sheet name is in single quotes because it contains a space, and the mandatory period (.) always falls outside any quotes.

So, you can fill in the Savings Account cell reference by just typing it in. Assuming that the balance is in the same cell in the *Savings Account* sheet, F3, the cell reference should be *='Savings Account'.F3*.



Choose Cells and Copy

Right-click a selected cell and then choose "Copy" from the context menu. Switch to the destination spreadsheet.

Establish a Link Between the Two Spreadsheets

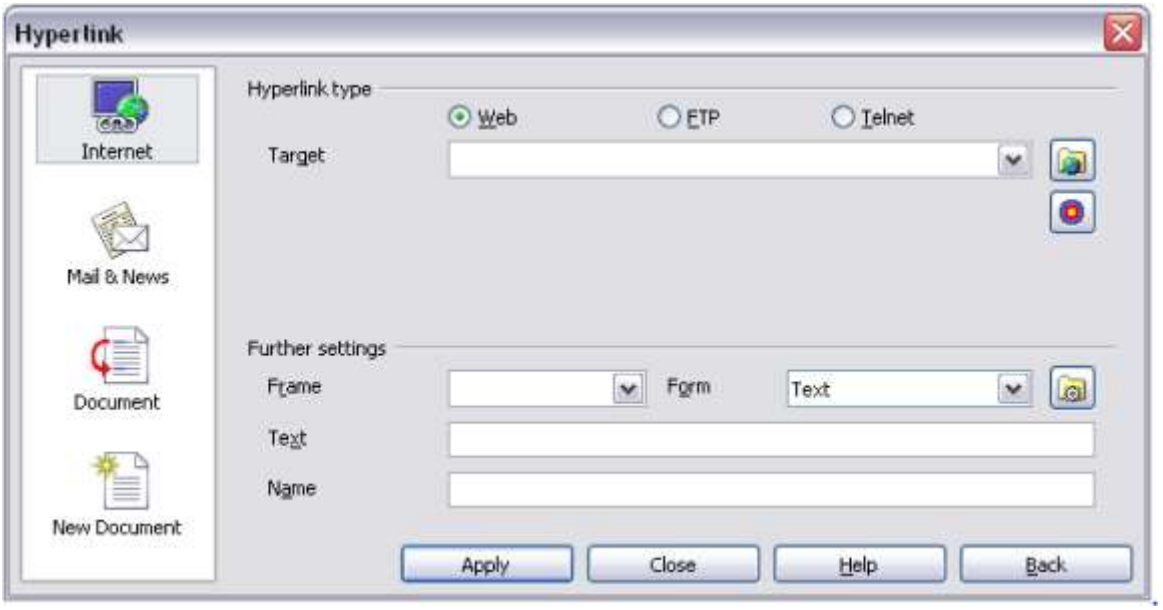
Right-click the target cell. Point to "Paste Special" and select the link option and click on ok

Hyperlink

Hyperlinks can be used in Calc to create spreadsheets that will be used in a web interface or to jump to a different location from within a spreadsheet.

You can also insert and modify links using the Hyperlink dialog as shown in the figure.
To display the dialog, click the Hyperlink icon on the Standard toolbar or select Insert > Hyperlink from the menu bar.
To turn existing text into a link, highlight it before opening the Hyperlink dialog.
On the left hand side, select one of the four types of hyperlinks:
• Internet: a web address, normally starting with http://
• Mail & News: for example an email address.

• Document: the hyperlink points to another document or to another place in the presentation.
• New document: the hyperlink creates a new document.



For a Document type hyperlink, specify the document path (the Open File button opens a file browser); leave this blank if you want to link to a target in the same. Optionally specify the target in the document (for example a specific slide). Click on the Target icon to open the Navigator where you can select the target, or if you know the name of the target, you can type it into the box. For a New Document type hyperlink, specify whether to edit the newly created document immediately or just create it (Edit later) and the type of document to create (text, spreadsheet, etc.). The Select path button opens a directory picker.
The Further settings section in the bottom right part of the dialog is common to all the hyperlink types, although some choices are more relevant to some types of links.
Form specifies if the link is to be presented as text or as a button.
Text specifies the text that will be visible to the user.

note:while working in formulas when we do not want the reference to be changed when we copy or drag down the formula to other cell references, feature to use $ will keep the reference same for all the further calculations.

1.2.4

In general, the best way to print large spreadsheets is to first preview the print output, then adjust the print settings to arrive at the desired effect.

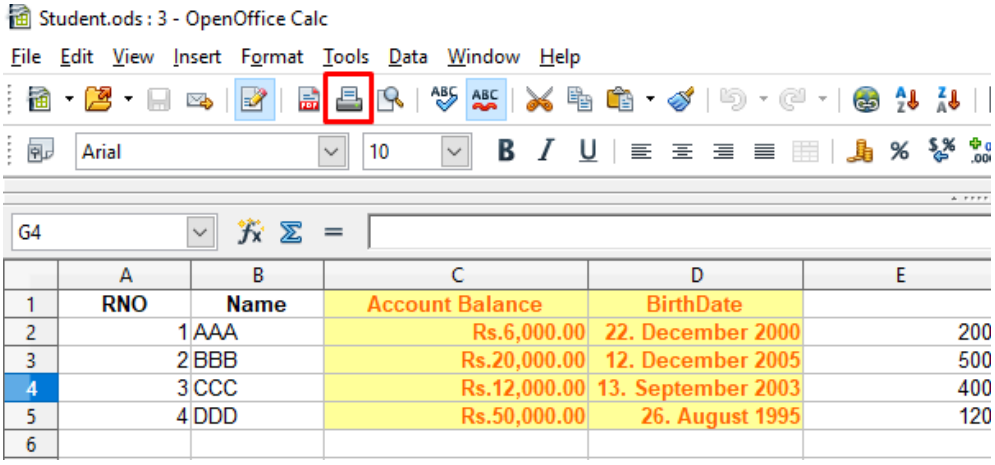
Previewing the print area:

1. With the spreadsheet open, go to **File > Page Preview** in the drop-down menus. Or On the Standard toolbar, select Page preview button for previewing the page.
2. To close the preview window, click the **Close Preview** button on the toolbar.

3. Make adjustments to the print settings, then preview again. Repeat until the print displays in the desired format.

Quick Print

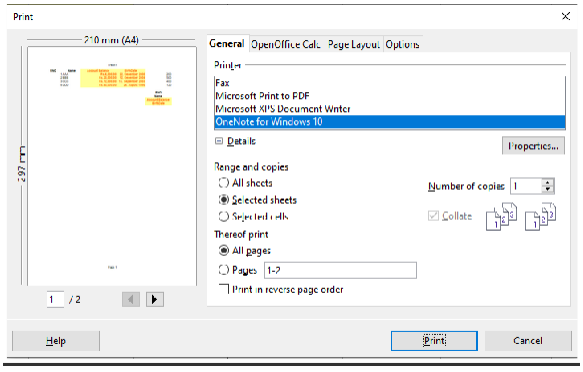
Click the **Print File Directly** icon to send the entire document to the default printer defined for your computer.



	A	B	C	D	E
1	RNO	Name	Account Balance	BirthDate	
2	1	AAA	Rs.6,000.00	22. December 2000	200
3	2	BBB	Rs.20,000.00	12. December 2005	500
4	3	CCC	Rs.12,000.00	13. September 2003	400
5	4	DDD	Rs.50,000.00	26. August 1995	120
6					

Print

The Print dialog, reached from **File > Print**, has some Calc-specific options: **Print** and **Print Range**.



Select the General on option.

Printer

The **printer** (from the printers available) are displayed.

Properties

Select the **Properties** button to display the selected printer's properties dialog where you can choose portrait or landscape orientation, which paper tray to use, and the paper size to print on from 'Advanced' option.

Range and copies

You can select one or more sheets for printing. This can be useful if you have a large spreadsheet with multiple sheets and only want to print certain sheets.

There are three options: All sheets, Selected sheets, Selected cells. You can choose single sheets, multiple sheets, and selections of cells for printing.

Thereof point

Select whether to print all pages or only some pages. Click the **OK** button.

1. Enter the page number of the page you want to print. The preview box changes to show the selected page.
2. Enter the sequence numbers of the pages to print (for example, 1–4 or 1,3,7,11).

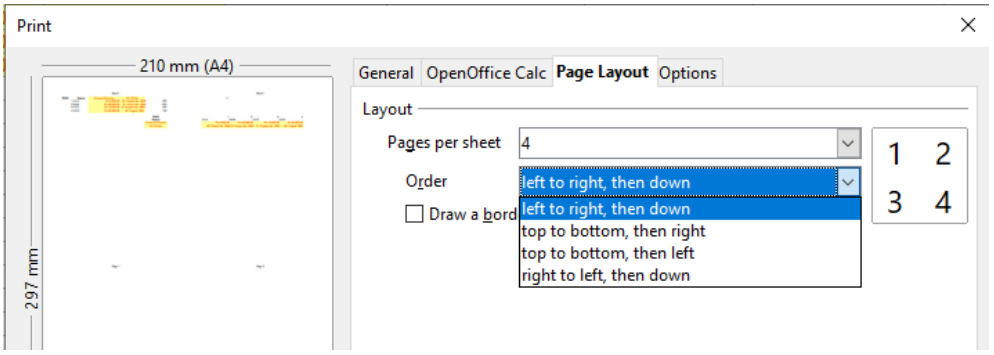
Number of copies

You can give no. of copes to print.

Printing multiple pages on a single sheet of paper

You can print multiple pages of a document on one sheet of paper. To do this:

1. In the Print dialog, select the Page Layout tab.
2. The *Layout* section, select from the drop-down list the number of pages to print per sheet. The preview panel on the left of the Print dialog shows how the printed document will look.
3. When printing more than 2 pages per sheet, you can choose the order in which they are printed across and down the paper.

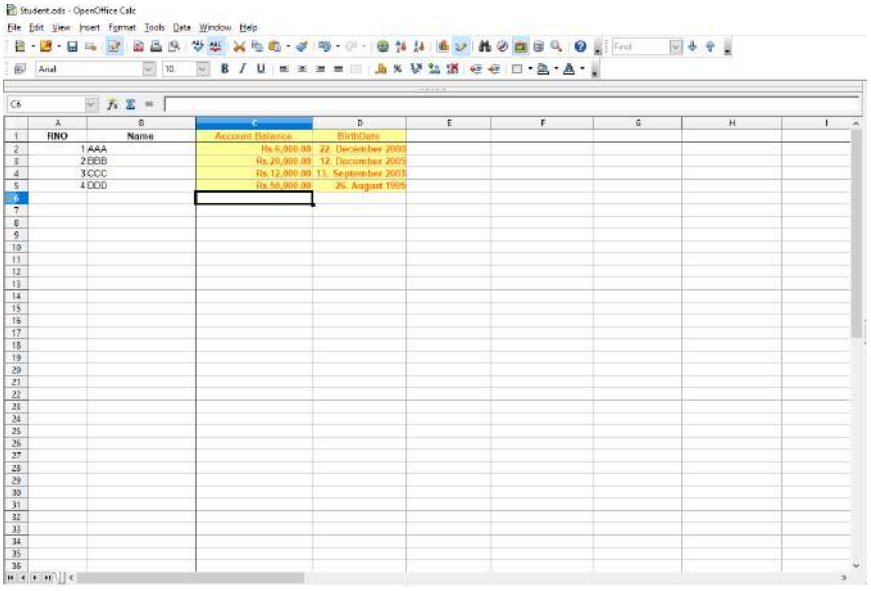


1.2.5

Freezing rows and columns

Freezing locks a number of rows at the top of a spreadsheet or a number of columns on the left of a spreadsheet or both. Then when scrolling around within the sheet, any frozen columns and rows remain in view.

You can set the freeze point at one row, one column, or both a row and a column as in figure above.



Freezing single rows or columns

1. Click on the header for the row below where you want the freeze or for the column to the right of where you want the freeze.
2. Select **Window > Freeze**.

A dark line appears, indicating where the freeze is put.

Freezing a row and a column

1. Click into the cell that is immediately below the row you want frozen and immediately to the right of the column you want frozen.
2. Select **Window > Freeze**.

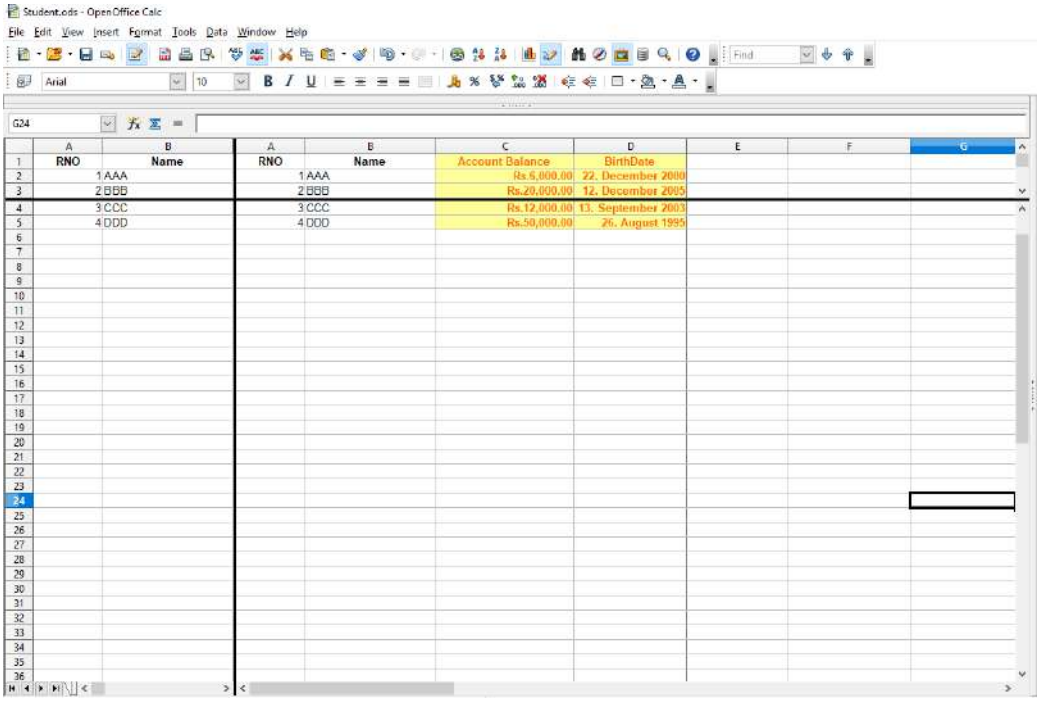
Two lines appear on the screen, a horizontal line above this cell and a vertical line to the left of this cell. Now as you scroll around the screen, everything above and to the left of these lines will remain in view.

Unfreezing

To unfreeze rows or columns, select **Window > Freeze**. The check mark by **Freeze** will vanish.

Splitting the window

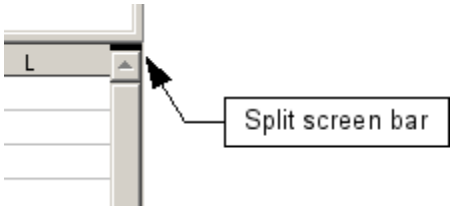
Another way to change the view is by splitting the window—also known as splitting the screen. The screen can be split either horizontally or vertically or both. This allows you to have up to four portions of the spreadsheet in view at any one time.



Splitting the screen horizontally

To split the screen horizontally:

1. Move the mouse pointer into the vertical scroll bar, on the right-hand side of the screen,and place it over the small button at the



top with the black triangle.

Split screen bar on vertical scroll bar

2. Immediately above this button you will see a thick black line (see above). Move themouse pointer over this line and it turns

into a line with two arrows (see below).

Split screen bar on vertical scroll bar with cursor

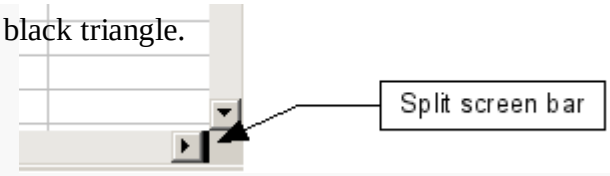
3. Hold down the left mouse button and a gray line appears, running across the page. Dragthe mouse downwards and this line follows.

4. Release the mouse button and the screen splits into two views, each with its own verticalscroll bar.

Splitting the screen vertically

To split the screen vertically:

1. Move the mouse pointer into the horizontal scroll bar at the bottom of the screen andplace it over the small button on the right with the black triangle.



Split bar on horizontal scroll bar

2. Immediately to the right of this button is a thick black line. Move the mouse pointer overthis line and it turns into a line with two arrows.
3. Hold down the left mouse button and a gray line appears, running up the page. Drag themouse to the left and this line follows.
4. Release the mouse button and the screen is split into two views, each with its ownhorizontal scroll bar.

Note: Splitting the screen horizontally and vertically at the same time gives four views, each with its own vertical and horizontal scroll bars.

Removing split views

To remove a split view:

1. Double-click on each split line, or
2. Click on and drag the split lines back to their places at the ends of the scroll bars, or
3. Select **Window > Split**. This will remove all split lines at the same time.

Hiding Data

To hide or show sheets, rows, and columns, use the options on the Format menu or the right-click (context) menu.

1. To hide a single row or multiple rows, first select the single row or multiple rows, andthen choose **Format > Row > Hide** (or right-click and choose **Hide**).
2. To hide a single column or multiple columns, first select the single column or multiple columns, and then choose **Format > Column > Hide** (or right-click and choose **Hide**).
3. To hide a sheet, first select the sheet, and then choose **Format > Sheet > Hide**.