



Microsoft Excel

It is a spreadsheet program which is used to present and organize copious amounts of data in a systematic manner. It also includes performs basics arithmetic operations on data and creates graphs and charts based on the same. '.xls' is the file extension of the MS Excel. Ribbons in MS Excel are divided into logical groups called Tabs and Each tab has its own set of unique function to perform. There are various tabs – Home, Insert, Page Layout, Formulas, Date, Review and View.

The following are the features of MS Excel 2016.

Home Tab

The Excel Home Tab is used to perform common commands such as bold, underline, alignment, Number, copy, and paste. It is also used to apply formats to cells in a worksheet. The Home Tab groups and their buttons are:

- **Clipboard Group** (Paste, Cut, Copy, Format Painter)
- **Font Group** (Bold, Italic, Underline, Font Style, Color & Size {decrease and increase}, Fill color, Borders)
- **Alignment Group** (Alignment {Top, Middle, Bottom, Left, Right, Centre}, Orientation, wrap text, Merger & Centre, Indent decrease & increase)
- **Number Group** (General, Accounting Number Format, Percent style, Comma style, Increase and decrease decimal)
- **Styles Group** (Conditional Formatting, Format as Table, Cell Styles)
- **Cells Group** (Insert cells, Delete cells, Format cells)
- **Editing Group** (AutoSum, Fill, Clear the format, Sort & Filter, Find & Select)

Insert Tab

Insert Tab is used to insert the picture, charts, filter, hyperlink etc. Alt+N is the shortcut Key to open Insert Tab. The Insert Tab groups and keys are:

- **Tables Group** (Pivot Table, Recommended Pivot Tables, Table)
- **Illustrations Group** (Pictures, Online pictures, Icons, Shapes, Smart Art Graphic, 3D models, Screenshot)
- **Add-ins Group** (Store, Insert Add-ins)
- **Charts Group** (Recommended charts, Maps, Pivot Chart Charts*)
- **Tours Groups** (3D Maps)
- **Sparklines Group** (Line, Column, Win/Loss)
- **Filters Group** (Slicer, Timeline)
- **Links Group** (Hyperlink)
- **Text Group** (Textbox, Header & Footer), WordArt, Signature line, Object)
- **Symbols Group** (Equation and Symbol)

Charts – There are eight types of charts. Column or Bar Chart, Hierarchy Chart, Line or Area Chart, Combo Chart, Statistic Chart, Bubble Chart, Pie Chart, Waterfall, Funnel, Stock, Surface or Radar Chart.

Page Layout Tab

The features under this tab used to change the look of a workbook. The groups under this tab are:

- **Themes Group** (Themes, Colors, Fonts, Effects)
- **Page Setup Group** (Margins, Orientation, Size, Print Area, Breaks, Background, Print Titles)



- **Scale to fit Group** (Page scale, Width and Height)
- **Sheet Options Group** (Gridlines, Headings)
- **Arrange Group** (Bring Forward, Send Backward, Align, Group, Rotate, Selection Pane)

Formulas Tab

Formulas Tab is used to make dynamic reports by using functions. In excel, 461 functions are availed from Office 2003 to 2013. Formulas Tab is divided into four groups.

- **Function Library** (Insert Function, AutoSum, Financial & Logical Function, Date & Time, Math & Trig, Lookup & Reference, Text, More functions {Statistical, Engineering, Cube etc})
- **Defined Names group** (Name Manager, Define Name, Use in Formula, Create from selection)
- **Formula Auditing** (Trace Precedents & Dependents, Error Checking, Evaluate Formula, Watch window)
- **Calculation Group** (Calculate sheet, options)

Data Tab

Data tab is used for importing a large amount of data. Importing Data can be done by connecting with the server, automatically from the web, MS Access etc. It makes easy to read vast data.

- **Get & Transform Data Group** (Get Data, From Text/CSV, Web, Table/Range, Existing Connections)
- **Queries & Connection Group** (Refresh All, Properties, Edit Links, Queries, Connections)
- **Sort & Filter Group** (Sort, Filter, Reapply, Clear, Advanced)
- **Data Tools Group** (Text to columns, Flash Fill, Remove Duplicates, Data Validation, Consolidate, Manage Data Mode, Relationships)
- **Forecast Group** (What-If Analysis, Forecast Sheet)
- **Outline Group** (Group, Ungroup, Subtotal)

Review Tab

It contains the editing feature, comments, track changes and workbook protection options. It makes to share the data easily with the proper information and ensuring the security of data.

- **Proofing Group** (Spell Check, Thesaurus)
- **Language Group** (Translate)
- **Comments Group** (Comment – New, Delete, Previous, Next, Hide/Show)
- **Protect Group** (Protect Sheet, Protect Workbook, Allow Edit Ranges, Unshared workbook)
- **Ink Group** (Start Inking, Hide Ink)

View Tab

View tab helps to change the view of an Excel sheet and make it easy to view the data. This tab is useful for preparing the workbook for printing. The groups and keys under this tab are

- **Workbook Views Group** (Normal, Page Break Preview, Page Layout & Custom View)
- **Zoom Group** (Zoom {range – 10% to 400%}, Zoom to selection)
- **Window Group** (New Window, Arrange All, Freeze Panes, View side by side, Synchronous Scrolling, Reset Window, Show/Hide, Switch Windows)
- **Macros Group** (Macros)

Help Tab

The user can get help using this tab, by pressing F1 Key.

- **Help & Support Group** (Help, Contact Support, Feedback, Show Training, What's New)
- **Community Group** (Community, Blog Site, Suggest a Feature)



Other Terms

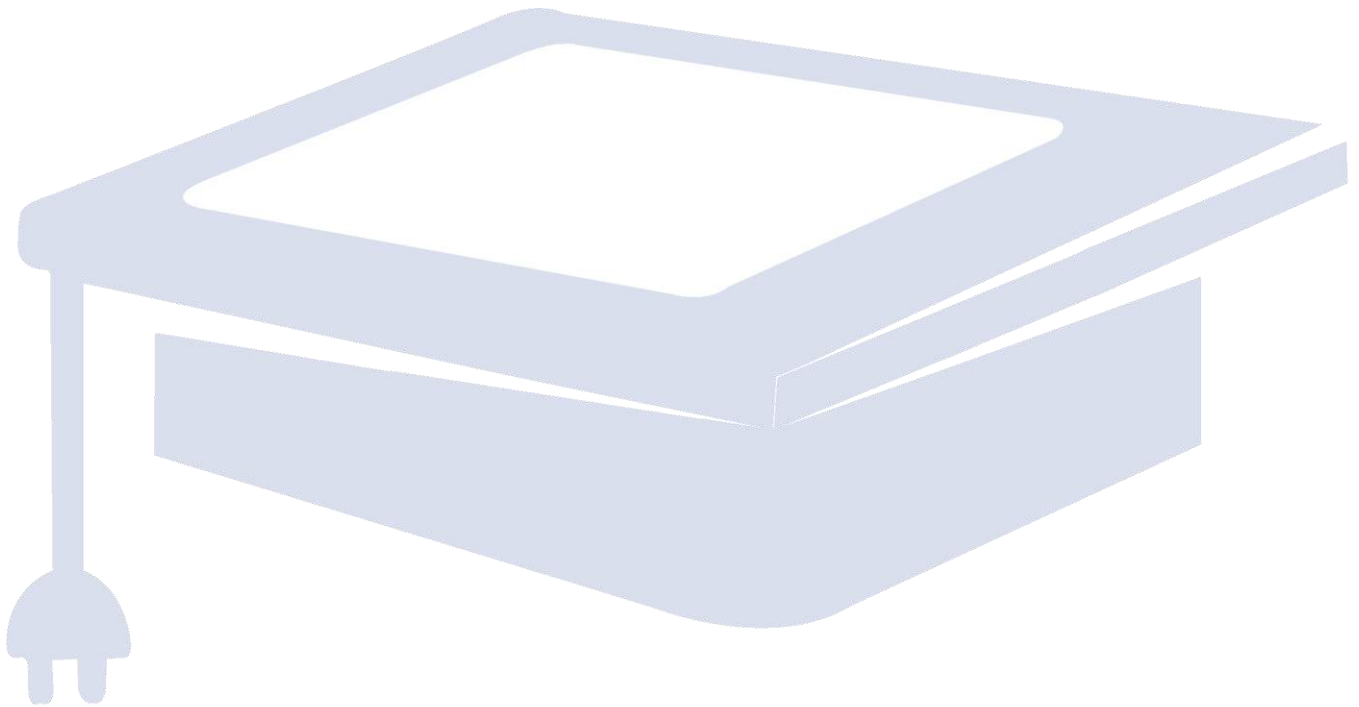
- **Workbook** – It is an Excel file which contains worksheets of rows and columns.
- **Worksheet** – A single document or sheet in a workbook which is used to store and work with data. It consists of rows and columns. In Excel 2016, Default worksheet in a workbook is one.
- **Row & Column Headings** – It indicates the number of rows (Left of the worksheet) and alphabet of column (Top of the worksheet). The total number of rows is 1,048,576 and columns is 16,384 in the new version of Excel sheet. Column width is 255 characters and row height is 409 points.
- **Cell** – Cell is a box which is the intersection of a row and column in a worksheet. It is the smallest block of the spreadsheet. The cell in which the user working is known as Active Cell. The maximum number of line feeds per cell is 253 in the new version of Excel.
- **Cell Address** – The location of a cell is known as Cell Address. Example: C10 (Column: Row)
- **Autofill** – Autofill fills the values in the cell according to a given pattern. (i.e. Months & Days, Even Numbers, Odd Numbers, tens, etc) This is done through the Fill Handle.
- **Formula** – It is an expression which calculates the value of a cell. It always starts with a '='.
- **Formula Bar** – It is located just below the ribbon. It shows the contents of the active cell and allows to create and view formulas.
- **Pivot Table** – Pivot Table is an interactive report creation system. It is used to reorganize and summarize the data.
- **Flash Fill** – Flash Fill is used to identify the patterns in existing data. It copies only required data from one column to another.
- **Freeze Panes** – It is used to freeze rows/columns in place and making it visible when scrolling. Example Header row visible
- **Macro** – It is a sequence of instructions that replace a repetitive series of keyboard and mouse actions to execute. It is used in MS Word and MS Excel.
- **Status Bar** – It is the Bar below the worksheet names that has a few buttons and indicators.
- **Wrap Text** – When text exceeds a column width/Height, wrap text automatically adjust the height/width of a cell to make all text visible.
- **Sparklines** – They are graphs that can fit into one cell and gives the information about the data.

Shortcut Keys

Keys	Description	Keys	Description
F2	Edit active cell	Shift + F11	Insert new worksheet
F5	Go to Dialog box	Shift + F9	Calculate the active worksheet
F9	Calculate worksheets	Ctrl + Shift + ;	Time
F4	Create an absolute	Ctrl + ;	Date
Tab	Right one Cell	F11	Create Chart
Shift + Tab	Left One Cell	Ctrl + Shift + U	Expand/Collapse formula bar
Ctrl + Home	To first Cell	Alt + =	Insert AutoSum formula
Ctrl + End	To Last Cell	Ctrl + ~	Show/hide all formula
Shift + Spacebar	Select entire row	Ctrl + Shift + @	Apply the time format
Ctrl + Spacebar	Select entire column	Ctrl + Shift + #	Apply the date format



Ctrl + 9	Hide selected rows	Ctrl + Shift + %	Apply the percentage format without decimal
Ctrl + 0	Hide selected columns	Ctrl + Shift + \$	Apply the currency format with two decimals
Arrow Keys	Move between Cells	Alt + Enter	Start a new line in the same cell
Alt + Spacebar	Display control Menu	Ctrl + Shift + Home	Extend the selection of the cells
F1	Create Pivot Chart	Alt + F1	Create Pivot Chart in the same worksheet



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