



Fundamentals of MS Excel for Professionals

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Topics Covered

- » Formatting
- » Basic Functions
- » Cell Linking
- » Table & List Management

Formatting

- » Formatting Functions
- » Need for Formatting
- » Basic Formatting
- » Conditional Formatting
- » Tips and Tricks

Basic Formatting

- » Fonts
- » Bold / Italic / Underlined / Struck Through / Sub Script / Super Script
- » Borders
- » Text Alignment
- » Text Indentation
- » Wrap Text
- » Merge Text
- » Number Formats

Need for Formatting

Unformatted Data

	A	B	C	D	E	F	G
1							
2	Student	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
3	A	14	10	8	11	15	17
4	B	10	8	5	9	12	9
5	C	5	5	4	6	4	5
6	D	17	19	23	21	18	17
7	E	9	6	7	7	8	10
8	F	8	6	7	8	9	9
9							

Data formatted to automatically track the change in marks attained

	I	J	K	L	M	N	O
Studen	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	
A	↑ 14	↓ 10	↓ 8	↑ 11	↑ 15	↑ 17	
B	↑ 10	↑ 8	↓ 5	↑ 9	↑ 12	↑ 9	
C	↑ 5	↑ 5	↓ 4	↑ 6	↓ 4	↑ 5	
D	↓ 17	↑ 19	↑ 23	↑ 21	↓ 18	↓ 17	
E	↑ 9	↓ 6	↓ 7	↑ 7	↑ 8	↑ 10	
F	↑ 8	↓ 6	↑ 7	↑ 8	↑ 9	↑ 9	

- » Professional Look
- » Tracking the trend in data
- » Highlighting anomalies & errors in data

A screenshot of the Microsoft Excel ribbon interface. The 'Home' tab is selected. The ribbon includes tabs for File, Home, Insert, Page Layout, Formulas, Data, Review, View, Developer, and ASAP Utilities. Under the Home tab, there are sections for Clipboard (Cut, Copy, Paste, Format Painter), Font (Calibri, 11pt, Bold, Italic, Underline, Font Color, Font Style), Alignment (Wrap Text, Merge & Center, Horizontal, Vertical, Alignment, Text Angle, Text Wrapping, Text Direction), Number (General, Number Format, Percentage, Decimal Places, Increase Decimal, Decrease Decimal), Conditional Formatting (Conditional Formatting, Format as Table, Styles), Cells (Insert, Delete, Format, Cells), and Editing (AutoSum, Fill, Clear, Sort & Filter, Find & Select). The worksheet area shows a grid from A1 to S5.

- » Clipboard Functions like Cut, Copy, Paste & Format Painter
- » Font formatting functions like Bold, Italics, Cell borders, Text Size, Font, etc.
- » Text alignment, Indentation, Text angle, Text wrapping, Cell merge, etc.
- » Cell Formats, Number formats, Date formats, Increase / Decrease Decimal
- » Cell styles, Conditional formatting, Table styles
- » Data sorting, Filtering, Fill series, Auto sum, etc.

Conditional Formatting

Cells containing values which are

- » Greater than certain value
- » Lower than certain value
- » Equal to a certain value
- » Between two values
- » Highlighting Low, Medium and High values
- » Highlighting errors using the ISERROR formula
- » Highlighting repetitions using the COUNTIF formula

Formatting Tips & Tricks

- » Use “Format as Table” setting
- » Use “Format Painter” to quickly copy formats between two cells
- » Use “Cell Styles” which are ready formatted cell styles
- » Use the Fill handle to copy formatting
- » Usage of short cuts

Use “Format as Table” setting

A screenshot of the Microsoft Excel ribbon interface. The 'Home' tab is selected. In the top right corner of the ribbon, there is a 'Format as Table' button, which is highlighted with a green circle and a green arrow pointing towards it from above. Below the ribbon, the worksheet area shows rows A through M and columns 1 through 24. Row 1 is selected, indicated by a yellow background. The 'Font' and 'Number' groups are visible on the ribbon, along with the 'Format' tab under the 'Cells' group. To the right of the ribbon, there is a large color palette for selecting table styles, divided into 'Light', 'Medium', and 'Dark' sections.

Use “Cell Style” setting

The screenshot shows the ASAP Utilities ribbon interface. The 'Cell Styles' tab is selected, indicated by a yellow background. The ribbon tabs include File, Home, Insert, Page Layout, Formulas, Data, Review, View, Developer, ASAP Utilities, and Soda PDF 7 Creator. The 'Cell Styles' tab has a dropdown menu showing 'General', 'Conditional Formatting as Table', and 'Format'. Below the ribbon is a toolbar with various icons for clipboard operations like Cut, Copy, Paste, and Format Painter, along with font and alignment tools. The main area shows a grid with columns C through M and rows 13 through 29. Cell C14 is selected. The 'Cell Styles' section on the right contains several tabs: 'Good, Bad and Neutral' (with Normal, Bad, Good, Neutral buttons), 'Data and Model' (with Calculation, Check Cell, Explanatory..., Input, Linked Cell, Note buttons), 'Output' (with Warning Text button), 'Titles and Headings' (with Heading 1, Heading 2, Heading 3, Heading 4, Title, Total buttons), 'Themed Cell Styles' (with 20% - Accent1 through 20% - Accent6 buttons), and 'Number Format' (with Comma, Comma [0], Currency, Currency [0], Percent buttons). At the bottom of this section are buttons for 'New Cell Style...' and 'Merge Styles...'. A large blue arrow icon is located in the bottom right corner.

Basic Functions

Function Name	Formulae
Sum function	{SUM(Number 1, Number 2, Number 3, ...)}
Count function	{COUNT(Range)}
Average function	{AVERAGE(Range)}
Minimum function	{MIN(Range)}
Maximum function	{MAX(Range)}
Round function	{ROUND(Number, Number of digits to which rounded off to)}
If function	{IF(Logical Test, Value if test is true, Value if test is false)}
And function	{AND(Logical Test 1, Logical Test 2, ...)}
Or function	{OR(Logical Test 1, Logical Test 2, ...)}

Cell Linking

- » Need of Linking
- » Cell referencing (Usage of \$)
- » Functions for Text Linking
- » Functions for Number Linking
- » Value Lookup formulae

Need for Cell Linking

- » Dynamic changes in data are easily captured
- » Efficient usage of time and efforts
- » Increases accuracy
- » Easy reference to source data
- » Facilitates sensitivity analysis
- » Creation of an audit trail

Cell Referencing

- » Usage of \$ for efficient cell referencing
- » Absolute Row & Relative Column: Row reference is locked but column reference is dynamic : eg.A\$1
- » Relative Row & Absolute Column : Row reference is dynamic but column reference is locked : eg.\$A1
- » Absolute Referencing : Both Row and Column references are locked : eg.\$A\$1
- » Relative Referencing : Both Row and Column references are unlocked : eg.A1

Functions For Text Linking

- » Concatenate : to join multiple text strings together
- » Exact : To compare two text strings and find out if they are exactly the same.
- » Left : Returns the specified number of characters from the start of the text string.
- » Right : Returns the specified number of characters from the end of the text string.

Value Lookups

- » Hlookup : Looks in the top row of an array and moves across the columns to return the value of the indicated cell : Hlookup(Lookup Value, Table Array, Row Index Number, Range Lookup)
- » Vlookup : Looks in the first column of an array and moves across the row to return the value of the indicated cell : Vlookup(Lookup Value, Table Array, Column Index Number, Range Lookup)

Table & List Management

- » Sorting of Values
- » Application of Filters
- » Pivot Table
- » Data Validation

Sorting of Values

- » Values can be sorted in the ascending & descending order
- » Days & Months can be sorted in the calendar series

Application of Filters

- » Filters play a crucial role in analysis of data
- » Used in simple scenarios like data sorting and even in pivot tables
- » Information for a particular class of data can be viewed and analyzed
- » Proper feeding of data is necessary for correct classification
- » Extensively used in MIS reporting

Pivot Table

- » Strong means of analysis and reporting of data
- » Extracting useful data from huge database in required form
- » Easy grouping of/ classification of information
- » Both detailed and broader views possible depending upon analytical requirement
- » Efficient and effective tool for MIS reporting
- » Database to be maintained in proper manner to avoid any errors in the table

Data Validation

- » Used for restricting the values that can be entered into a cell.
- » Used in creation of forms & databases
- » It throws up an error alert when invalid data is entered into the cell.
- » Data Validation helps prevent errors in cell data entry.
- » Validation criteria can allow whole number, decimal, values specified in a list, date, time, or a specified text length.

Tips & Tricks

- » All text entered in formulae to be entered within “double inverted commas”.
- » Maximise use of keyboard shortcuts
- » Maximise usage of formulae and cell linking
- » Compose text using “&”. Eg. =A1&B1&C1 will give a result of combining cells A1, B1 & C1.
- » While creating any model in excel, data flow should be in the following order:
 1. Inputs
 2. Calculations
 3. Output Results
 4. Reports & Summaries

Shortcut key	Action Menu
Ctrl+A	Select All
Ctrl+B	Bold Format
Ctrl+C	Copy
Ctrl+D	Fill Down
Ctrl+F	Find
Ctrl+G	Goto
Ctrl+H	Replace
Ctrl+I	Italic Format
Ctrl+K	Insert Hyperlink
Ctrl+N	New Workbook
Ctrl+O	Open File
Ctrl+P	Print File
Ctrl+R	Fill Right
Ctrl+S	Save File
Ctrl+U	Underline
Ctrl+V	Paste
Ctrl W	Close File
Ctrl+X	Cut
Ctrl+Y	Repeat
Ctrl+Z	Undo
Alt+D+F+F	Apply / Remove Filters
Ctrl + Page Down	Move to Next Sheet
Ctrl + Page Up	Move to Prior Sheet

THANK you!!!

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