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

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Basic Formatting

» Fonts

» Bold / Italic / Underlined / Struck Through / Sub Script / Super Script

» Borders

» Text Alignment

» Text Indentation

» Wrap Text

» Merge Text

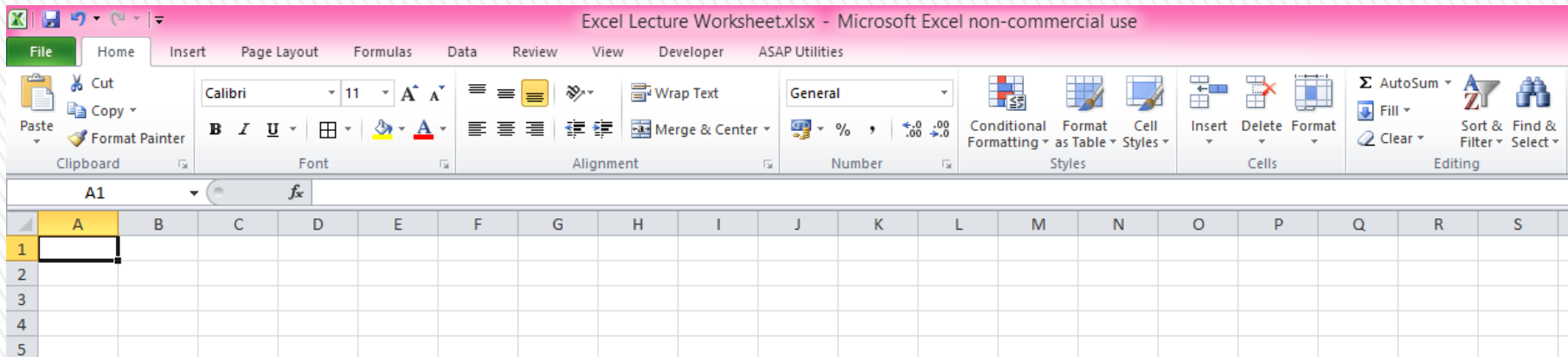» Number Formats

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Need for Formatting

Unformatted Data

Data formatted to automatically track the change in marks attained

◢	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							

	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

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- » 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.

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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

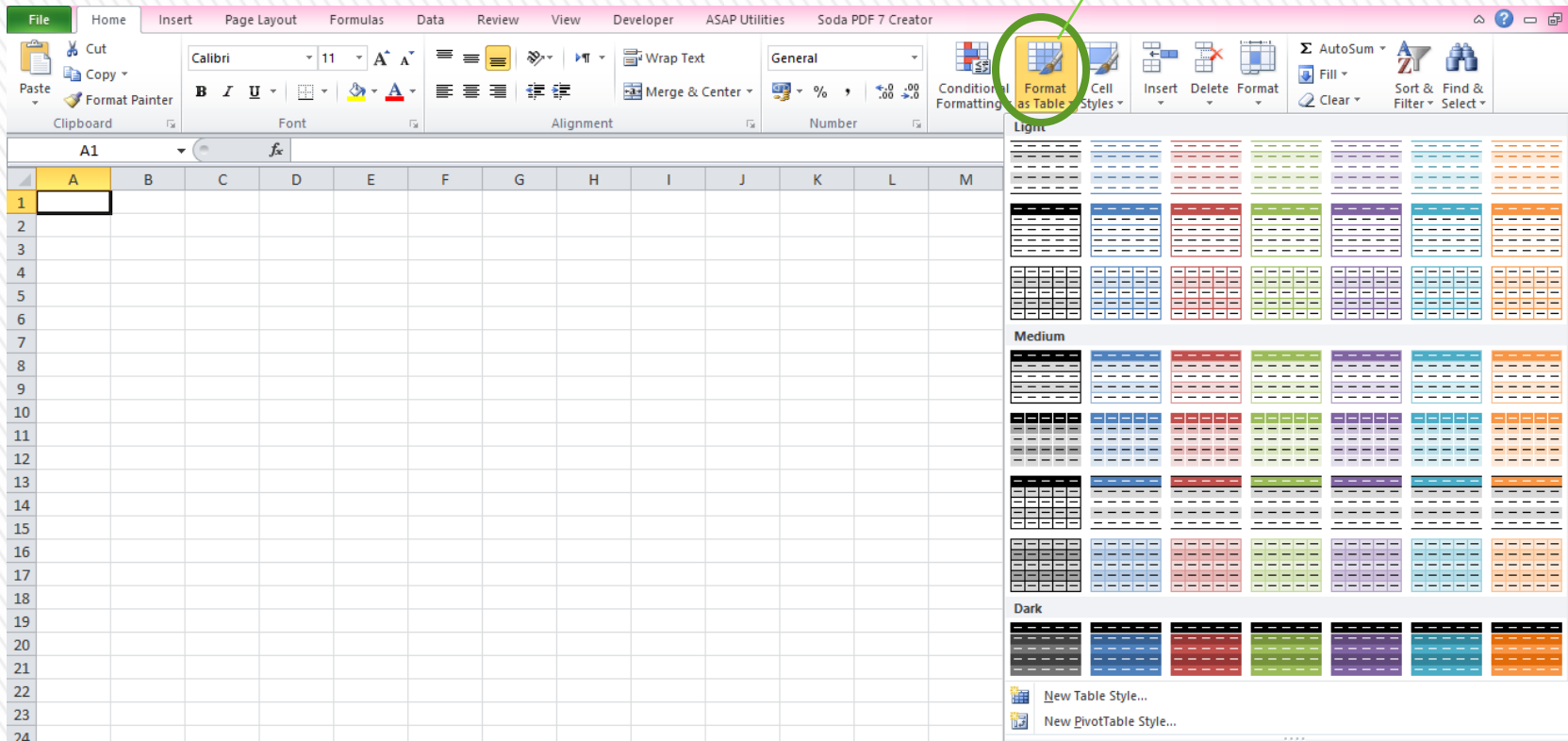# Formatting Tips & Tricks

» 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

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Use "Cell Style" setting

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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.A1

» Relative Referencing : Both Row and Column references are unlocked : eg.A1

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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)

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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

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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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