

Lesson:



Introduction to MS Excel - 2



In the previous session we learned

- Introduction to MS Excel and Spreadsheet Operations

In this session we will learn

- Data types
- Basic Arithmetic Operations
- Sorting and Filtering Data

Saving and opening Excel workbooks

You can save your Excel workbook using the shortcut Ctrl+S or by clicking on File -> Save.

There are 2 commonly used Excel formats - .xlsx and .csv

It is always recommended to save your workbook as .xlsx. This is the latest format that supports multiple worksheets, formatting, etc.

A lot of the data you get as a business analyst will be in the .csv format – which does not support multiple worksheets or formatting. It is always recommended to open .csv files and go to File -> Save As to save the file as .xlsx before performing much operations on it.

.csv is still in use because it is easier to manage data extraction and data upload in this format.

You can click on File -> Open to open an Excel workbook you have saved in your system.

Entering Data in an Excel Workbook

Once your worksheet is open, the next thing to do is enter data. As a business analyst, you will be expected to perform analysis on workbooks where the data is already entered, but there will be cases where data needs to be entered as well.

When entering data, first, open your worksheet. In that, select the cell where you want to enter data.

Once the cell is selected, you can simply type the data and it will get entered. Once you are done typing, press Enter key and the entry is completed.

If you click on the same cell and try to enter anything, the existing data is deleted and new content is taken. If you only want to edit existing data, you can double click on the cell which enables you to edit.

A simple formatting tip

When you need to make a row or column larger in width, simply hover over the header (A,B,C,D etc or 1,2,3,4 etc – you will get the following mouse pointer. Now just click and drag to adjust the width of the row or column. You can also select multiple rows/columns and change their width to the same size with this method.

	A	B	C	D
1				
2				
3				
4				

Data types on Excel

Excel supports multiple datatypes - the key 2 are given below

1. Numbers: We have been using numbers so far as datatypes. Numbers are recorded on spreadsheet, and operations are performed on these numbers. Numbers record things like sales of a shop, marks of a student, and any similar numerical data.
2. Text: Excel can also record text data in cells. Text is used to record names, unique identifiers etc.

Other Datatypes include Date, Currency, and Boolean

Excel allows to classify the data in your cell in multiple formats - like date, time, currency etc. Right click on a cell, and select - "Format Cells". This will give you the different formats supported by Excel. If your data falls under one of the formats, you can select that, and Excel will style that cell in accordance with the format

Performing Arithmetic Operations on Excel

Any formula you write on Excel will start with "=" sign. If you want to add A2 and B2, your formula becomes =A2+B2

Now let's look at commonly used operators in Excel

- Addition - Syntax "=A2+B2", adds 2 or more numbers
- Subtraction - Syntax "=A2-B2", subtracts second number from first number
- Multiplication - Syntax "=A2*B2", multiplies 2 numbers
- Division - Syntax "=A2/B2", divides first number by second number

Some additional tips on writing basic formulas on Excel

- You can perform an operation on more than 2 numbers on Excel - "=A2+B2+C2" will add all 3 numbers
- You can press F2 key in a cell and Excel will show the formula in the cell on the spreadsheet itself. You can always see the formula in the formula bar as well.

Customer Number	Amount Deposited	Interest Amount	Total Amount in
Customer 1	24485	1754	=B2+C2 26239

Sorting and Filtering Data

Filters help you display only data that meets certain criteria. Let's say you are Flipkart and have the data on each customer who has purchased a TV in the past week. They would have purchased TVs from Samsung, LG, Mi, and many other brands. Let's say you only want to identify the sales that has happened for Samsung - this is where filters help. You can filter text fields by

1. Exact text - If Samsung is selected, only entries with Samsung will show up
2. By condition
 - a. Is the field empty
 - b. Does it contain a letter/word - If you set the rule as "Contains 'S'", only those brands which contain an S in their name will be visible - This can include cases like Samsung, where the name starts with S, but also cases like Hisense, where the name contains S, but may not start with it. You can also set conditions like "Starts with", where only those entries that starts with a letter (like "S") or a string (group of letters, like "Sam") will get filtered. Similarly there is also an option to filter entries that end with a letter/string.
3. Values - You may always want to filter certain values in a set of numbers - here you can filter exact values (equal to 5), values that fall between certain limits (between 3 and 6), values that are greater than or less than a value (greater than 5, less than 10 etc).
4. Color - On Excel, you can go to a cell and color it using the "Fill Color" option. If you have a row with multiple colors, you can filter the data by colors.

How to implement filters

Filtering as a feature is always done on columns only.

To set up a filter, select a dataset in Excel, and press Ctrl+Shift+L. You can also click on the sort & filter icon on the top right and select "filter".



This is the same as the filter icon in Google Sheets



If you just select a cell and apply filter, the filter will apply to the entire data around the cell (if there is an empty row or column, cells after that will not be selected).

Once the filter is applied, you will drop down on the top row of the selected data.

Customer Number	Amount Deposited	Interest Amount
▼	▼	▼

You can click on the drop down to access filter options discussed above.

Sorting Data

You can also click on the drop down to access sorting options.



This will give you the following options –

Sort by value – smallest to largest or largest to smallest – in the case of numbers

Sort alphabetically – in case of text

Sort by color – if the cells have been colored

Some spreadsheet tools also allow you to set custom sort methods where you can define how the sorting should be done.

Additional tips – some shortcuts to make your Excel journey easier

Ctrl + C – It is used to copy the content from the selected cell.

Ctrl + V – It is used to paste the content from the clipboard.

Ctrl + Arrows – It is used to go the last cell in the direction of the arrow. Excel calculates the last cell as the cell before the first blank cell.

Shift+Arrows – It is used to select a range of cells

CTRL+Shift+Arrows – It is used to select a cell range up to the last cell.

CTRL+A – Select everything in the current range – selects all cells till the first blank row and first blank column.

Try these in your Excel sheet to make sure the operations are clear!

Next session – Important Excel Functions, Conditional Formatting

You can download and practice the concepts covered so far in Excel from our website, pwskills.com