

Assignment - 1

Excel, Introduction and Basic Functions.

1. Difference, Workbook and Worksheet.

- A workbook is the entire Excel file with multiple sheets.
- A worksheet is a single page within the workbook used to enter data.
- A workbook can contain many worksheets (sheet 1, sheet 2, etc.).
- Worksheets consist of rows and columns forming cells where data is stored.

2. Creating a Basic formula

- Formulas start with an equals (=) sign.
- Example: $=A1+B1$ adds values in A1 and B1.
- You can also use subtraction $=A1-B1$, multiplication $=A1\times B1$, division $=A1/B1$.
- Formulas automatically update when cell values change.

3. Cell Referencing:

- Cell referencing uses cell addresses like A1, B5 to calculate values.
- Example: $=A1\times B1$ multiple formulas to avoid rewriting values.
- Can be used in multiple formulas to avoid rewriting values.
- Helps create dynamic calculations that update automatically.

4. Sum function & purpose

- The SUM function adds a group of numbers or cells
- Example: =SUM(A1:A10) totals the range A1 to A10.
- Save time instead of adding each value manually.
- Can be used for rows, columns, or multiple ranges at once (e.g., =SUM(A1:A5, C1:C5)).

5. Applying the AVERAGE function.

- AVERAGE finds the mean value of selected numbers.
- Example: =AVERAGE(B1:B10)
- Useful for marks calculation, business reports, income/expense analysis.
- Ignores blank cells automatically when calculating.

6. Relative vs Absolute Cell Reference.

- Relative Reference: A1 changes when copied ($A_1 \rightarrow B_1 \rightarrow C_1$)
- Absolute Reference: \$A\$1 stay fixed even when copied.
- Use F4 key to quickly convert to an absolute reference.
- Relative is best for repeated calculations absolute for fixed values like tax or GST.

7. Quickly Summing a Row or Column.

- Select the cell below or beside a range → Press Alt + =.
- Excel automatically selects the nearest range to total.
- faster than typing formulas manually.
- Works for both horizontal rows and vertical columns.

8) AutoSum Feature.

- Located on the Home / Formula tab as the Σ symbol.
- Select a cell → click AutoSum → Press Enter.
- Automatically detects number ranges.
- Can be used to apply function like SUM, AVERAGE, COUNT, MIN and MAX.

9) Insert & Delete Rows / columns.

- To insert : Right-click row/column header → Insert
- To Delete : Right-click row/column header → Delete
- You can also use : Home Tab → Cells Group → Insert / Delete.
- Insert shifts data down or right; delete shifts data up or left.

10) Common Business Uses of Excel.

- Budget planning, expense tracking, and Payroll calculation.
- Data analysis using charts, graphs, pivot tables.
- Preparing invoices, receipts, and financial reports.
- forecasting performance planning tracking, and project