

Lab 04 Manual

1. Introduction to Excel

Microsoft Excel is a spreadsheet program used for organizing, analyzing, and storing data. It is widely used in computer science, business, finance, and research. Excel allows you to work with numbers, text, and formulas in a tabular format.

Key elements of Excel:

- **Workbook:** A file containing one or more worksheets.
 - **Worksheet:** A single page of rows and columns.
 - **Cell:** An individual box identified by a column letter and row number (e.g., A1).
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2. Adding and Deleting in Excel

Adding Data

1. Select the cell where you want to enter data.
2. Type the value or text and press **Enter**.
3. You can also drag the corner of a cell to fill series (e.g., 1, 2, 3... or Jan, Feb, Mar...).

Deleting Data

- To clear the contents of a cell: Select it and press **Delete**.
 - To delete rows or columns:
 - Right-click the row/column header → **Delete**.
 - Or go to the **Home** → **Cells** → **Delete** option.
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3. Basic Operations

Adding Numbers

1. Type numbers in two cells (e.g., A1=5, A2=10).
2. In another cell (e.g., A3), type:
3. =A1+A2

Result = 15.

Concatenation (Joining Text)

Concatenation combines text from multiple cells.

Example:

- Cell A1 = "Hello"
- Cell B1 = "World"
- In cell C1:
 - =CONCATENATE(A1, " ", B1)

Result = **Hello World**

4. Useful Functions for Beginners

- **SUM** → =SUM(A1:A5) → Adds numbers in range A1 to A5.
 - **AVERAGE** → =AVERAGE(B1:B10) → Finds mean of values.
 - **MIN / MAX** → =MIN(C1:C8) or =MAX(C1:C8).
 - **COUNT** → =COUNT(D1:D10) → Counts numeric values in a range.
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5. Formatting Basics

- **Bold/Italic/Underline**: Use toolbar or Ctrl+B / Ctrl+I / Ctrl+U.
 - **Cell Alignment**: Align text left, center, or right.
 - **Borders & Colors**: Use them to highlight important cells.
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6. Practice Tasks

1. **Simple Addition**
 - Enter 5 numbers in column A.
 - Find the total using both =A1+A2+... and =SUM(A1:A5).
2. **Concatenation Exercise**
 - Column A contains first names, Column B contains last names.
 - Use concatenation to create full names in Column C.
3. **Deleting & Editing**
 - Enter numbers in column D.

- Delete the second number and insert a new one in its place.
4. **Mini Data Table**
- Create a small table of 10 students with their marks in 4 subjects.
 - Calculate:
 - Total marks (`SUM`)
 - Average marks (`AVERAGE`)
 - Highest mark (`MAX`)