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Coimbatore- 49



**DEPARTMENT OF COMMERCE WITH INFORMATION
TECHNOLOGY**

21UCI507 -Business Information Technology

Spread sheets – Introduction ,Types of data , Entering formulas

Mrs.M.Viveka, MCA., M.Phil., (Ph.D).,

Assistant Professor,

Department of Commerce with Information Technology

INTRODUCTION TO SPREADSHEET

A **Spreadsheet** is an application used to:

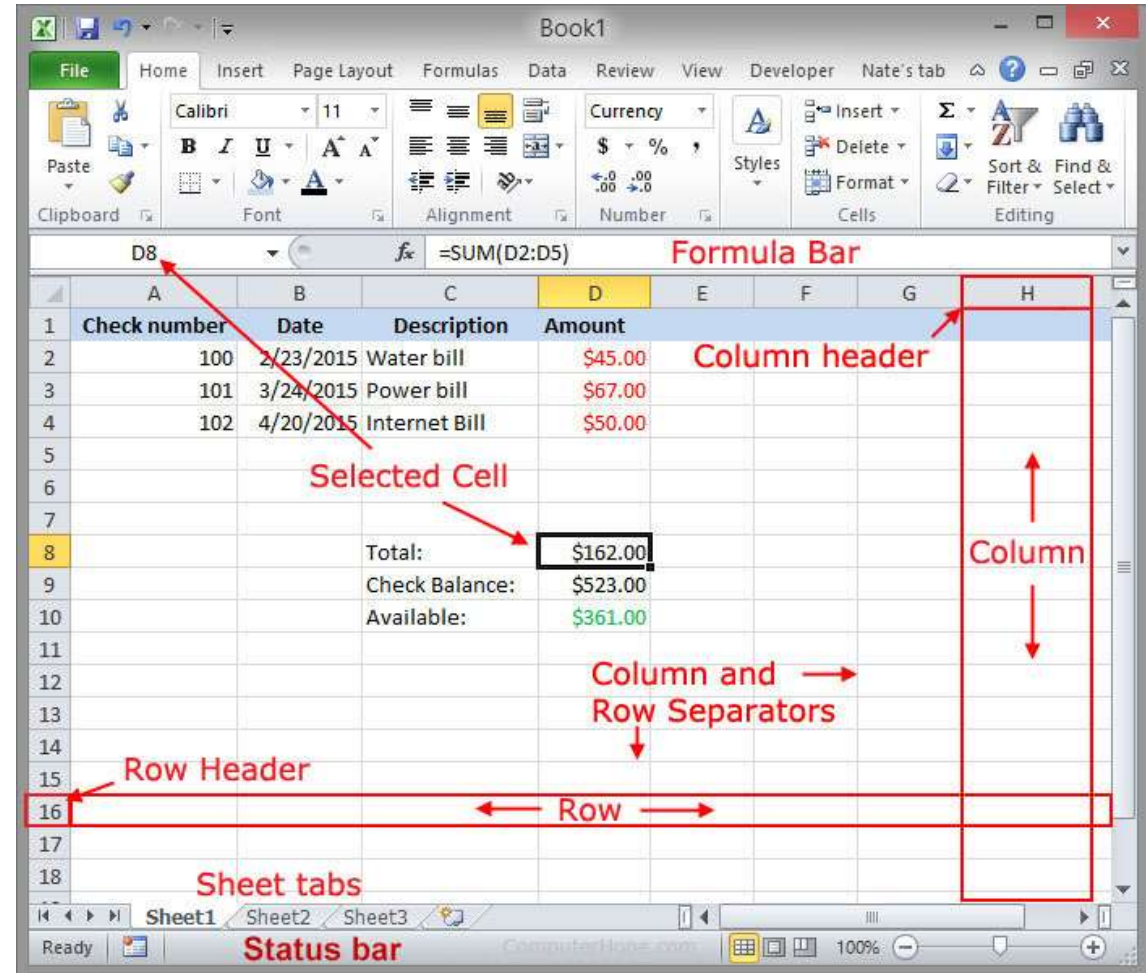
- Store data
- Organize data
- Perform calculations
- Analyze information

It is made of **rows, columns and cells.**

Examples:

- Microsoft Excel
- Google Sheets
- LibreOffice Calc

Used in: Business, Education, Accounting, Banking.



The screenshot shows a Microsoft Excel spreadsheet titled 'Book1'. The spreadsheet contains a table with columns labeled 'Check number', 'Date', 'Description', and 'Amount'. The 'Amount' column is highlighted in yellow. The formula bar shows the formula '=SUM(D2:D5)'. The spreadsheet is annotated with red arrows and text labels: 'Selected Cell' points to cell D8; 'Column header' points to the header row; 'Column' points to the vertical range of cells; 'Column and Row Separators' points to the grid lines; 'Row Header' points to the header row; 'Row' points to the horizontal range of cells; 'Sheet tabs' points to the tabs at the bottom; and 'Status bar' points to the bottom status bar.

| Check number | Date | Description | Amount |
|----------------|-----------|---------------|----------|
| 100 | 2/23/2015 | Water bill | \$45.00 |
| 101 | 3/24/2015 | Power bill | \$67.00 |
| 102 | 4/20/2015 | Internet Bill | \$50.00 |
| Total: | | | \$162.00 |
| Check Balance: | | | \$523.00 |
| Available: | | | \$361.00 |

A spreadsheet contains:

- **Rows** – Horizontal lines
- **Columns** – Vertical lines
- **Cells** – Intersection of row and column
- **Cell Address** – Example: A1, B5, C10

Each cell can store data such as text, numbers or formulas.

TYPES OF DATA IN SPREADSHEET

There are **three main types of data** in spreadsheets:

1.Text (Label)

2.Number (Value)

3.Formula

These data types are used to perform calculations and analysis.

Text data includes:

- Names
- Subjects
- Cities
- Product names

Examples:

- Raj
- Computer Science
- Chennai

Text data is **not used for calculations.**

NUMBER DATA (VALUE)

Number data includes:

- Marks
- Price
- Quantity
- Salary

Examples:

- 50
- 1200
- 89.5

Number data is **used for calculations.**

A **Formula** is an equation used to perform a calculation.

It always starts with = (**equal sign**).

Examples:

- =A1 + B1
- =C2 * D2
- =SUM(A1:A5)

Formulas save **time and reduce errors**.

ENTERING FORMULAS IN EXCEL

Steps to enter a formula:

- Click on a cell
- Type = (equal sign)
- Select the required cells
- Press Enter

Example:

If A1=10 and B1=20

In C1 type: =A1+B1

Result = 30

Some commonly used formulas:

- =SUM(A1:A5)
- =AVERAGE(A1:A5)
- =MAX(A1:A5)
- =MIN(A1:A5)

These are used to calculate totals, averages, highest and lowest values.

Scenario:

A class teacher wants to calculate the **total and average marks of students** in five subjects.

Problem:

- Manual calculation is time-consuming
- Errors may occur
- Needs quick result

Spreadsheet and formulas are used to solve this problem easily.

DESIGN THINKING ACTIVITY

Empathize

Talk to teachers and identify difficulties in calculating marks manually.

Define

“Teacher faces difficulty in _____ because _____.”

Ideate

Suggest solutions:

- Use Excel
- Use SUM and AVERAGE formulas
- Use simple layout
- Auto calculation
- Save file for future

Prototype

Create a sample spreadsheet:

Name | Sub1 | Sub2 | Sub3 | Total | Average

Test

Enter marks for 5 students and test the formulas.

QUICK KNOWLEDGE (QUIZ)



1. Which symbol is used to start a formula in Excel?

A) +

B) =

C) %

D) @

2. Which is a type of spreadsheet data?

A) Text

B) Number

C) Formula

D) All of the above

QUICK KNOWLEDGE (QUIZ)



3. Which formula is used to find total?

A) =AVERAGE()

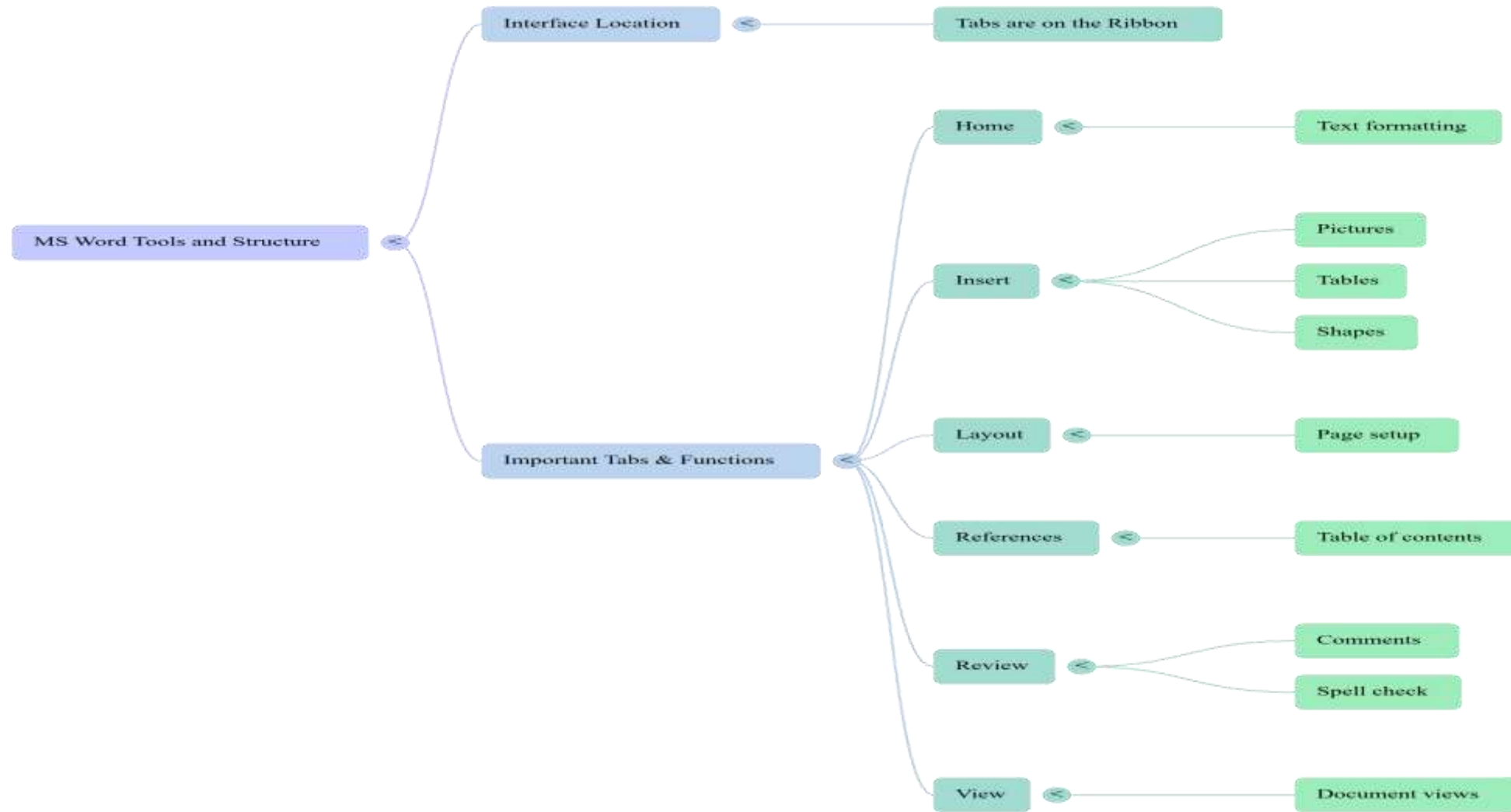
B) =MAX()

C) =SUM()

D) =MIN()

Answers: 1 – B , 2 – D, 3 – C

Mind Map



**Next Topic:
Simple calculations , Working with work book**

