WEB DEVELOPMENT AND DATABASE ADMINISTRATION

Level – I

Based on March 2022, Curriculum Version 1

Module Title: - Operate Spreadsheet applications

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Acknowledgment

Ministry of Labor and Skills wish to extend thanks and appreciation to the many representatives of TVET instructors and respective industry experts who donated their time and expertise to the development of this Teaching, Training and Learning Materials (TTLM).

Acronyms

1. **MS-Excel** — **Microsoft Excel**
2. **PC** — **Personal computer**
3. **CD-R** — **Compact disc-recordable**
4. **USB** — **Universal Serial Bus**
5. **ICT** — **Information communication technology**
6. **WDDA** — **Web development and database administration**
7. **TTLM** — **Teaching, Training and Learning Materials**

Introduction to the module

A **spreadsheet** or **worksheet** is a file made of rows and columns that help sort, organize, and arrange data efficiently, and calculate numerical data. What makes a spreadsheet software program unique is its ability to calculate values using mathematical formulas and the data in cells. An example of how a spreadsheet may be utilized is creating an overview of your bank's balance. spreadsheet and worksheet mean the same thing. However, most people only refer to the program as a spreadsheet program and the files it creates as spreadsheet files or worksheets.

This Module covers the unit

- Create spreadsheets
- Customize basic settings
- Format spreadsheet
- Insert chart in spreadsheet

Learning Objective of the Module

- Print spreadsheet
- Can Create spreadsheets
- Apply Customize basic settings on spreadsheet
- Format spreadsheet
- Insert chart in spreadsheet
- Can Print spreadsheet

Module Instruction

For effectively use these modules trainees are expected to follow the following module instruction:

1. Read the specific objectives of this Learning Guide.

2. Follow the instructions described below.

3. Read the information written in the information in respectively.

4. Accomplish the "Self-check 1, Self-check 2, Self-check 3 and Self-check 4, Self-check 5, Self-check 6 and self-check7" respectively.

5. If you earned a satisfactory evaluation from the "Self-check" proceed to "Operation Sheet.

6. Do the "LAP test" at the end page (if you are ready).

Unit one: Create spreadsheets

This learning unit is developed to provide the trainees the necessary information regarding the following content coverage and topics:

- Purpose and function of spreadsheet
- Open spreadsheet application, create spreadsheet files and enter numbers, text and symbols into cells.
- Enter simple formulas and functions use cell reference
- Correct formulas
- Edit columns and rows within the spreadsheet
- Use the auto-fill function to increment data
- Save spreadsheet to directory or folder

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Open spreadsheet application, create spreadsheet files and enter numbers, text and symbols into cells according to information requirements
- Enter simple formulas and functions using cell referencing where required
- Correct formulas when error messages occur
- Edit columns and rows within the spreadsheet
- Use the auto-fill function to increment data where required
- Save spreadsheet to directory or folder

1.1 Purpose and Function of spreadsheet

1.1.1 Purpose of spread sheet

The purpose of a spreadsheet is to organize and calculate information. Spreadsheets are utilized by many different businesses and organizations to perform a variety of tasks. The most commons tasks performed by spreadsheet software include functions, computations, statistical analysis, and formatting. This text will focus on excel when discussing spreadsheets.

Spreadsheets are an essential business and accounting tool. They can vary in complexity and can be used for various reasons, but their primary purpose is to organize and categorize data into a logical format. Once this data is entered into the spreadsheet, you can use it to help organize and grow your business.

1.2. 1 Function of spread sheet

A spreadsheet is a file that exists of cells in rows and columns and can help arrange, calculate and sort data. Data in a spreadsheet can be numeric values, as well as text, formulas, references and functions.

A spreadsheet is a computer program that can capture, display and manipulate data arranged in rows and columns. Spreadsheets are one of the most popular tools available with personal computers. A spreadsheet is generally designed to hold numerical data and short text strings. In a spreadsheet program, spaces that hold items of data are called spreadsheet cells. These can be renamed to better reflect the data they hold and can be cross-referenced through row numbers and column letters.

Below are some other popular uses of spreadsheets.

A. Finance

Spreadsheets are ideal for financial data, such as your checking account information, budgets, taxes, transactions, billing, invoices, receipts, forecasts, and any payment system.

B. Forms

Form templates can be created to handle inventory, evaluations, performance reviews, quizzes, time sheets, patient information, and surveys.

C. School and grades

Teachers can use spreadsheets to track students, calculate grades, and identify relevant data, such as high and low scores, missing tests, and students who are struggling.

D. Lists

Managing a list in a spreadsheet is a great example of data that does not contain numbers, but still can be used in a spreadsheet. Great examples of spreadsheet lists include telephone, to-do, and grocery lists.

E. Sports

Spreadsheets can keep track of your favorite player stats or stats on the whole team. With the collected data, you can also find averages, high scores, and statistical data. Spreadsheets can even be used to create tournament brackets.

1.2 Open, create spreadsheet files and enter numbers, text and symbols into cells

1.2.1 Open spreadsheet

Excel is a **spreadsheet program** that allows you to **store**, **organize**, and **analyze information**. While you may believe Excel is only used by certain people to process complicated data, anyone can learn how to take advantage of the program's **powerful features**. Whether you're keeping a budget, organizing a training log, or creating an invoice, Excel makes it easy to work with different types of data.

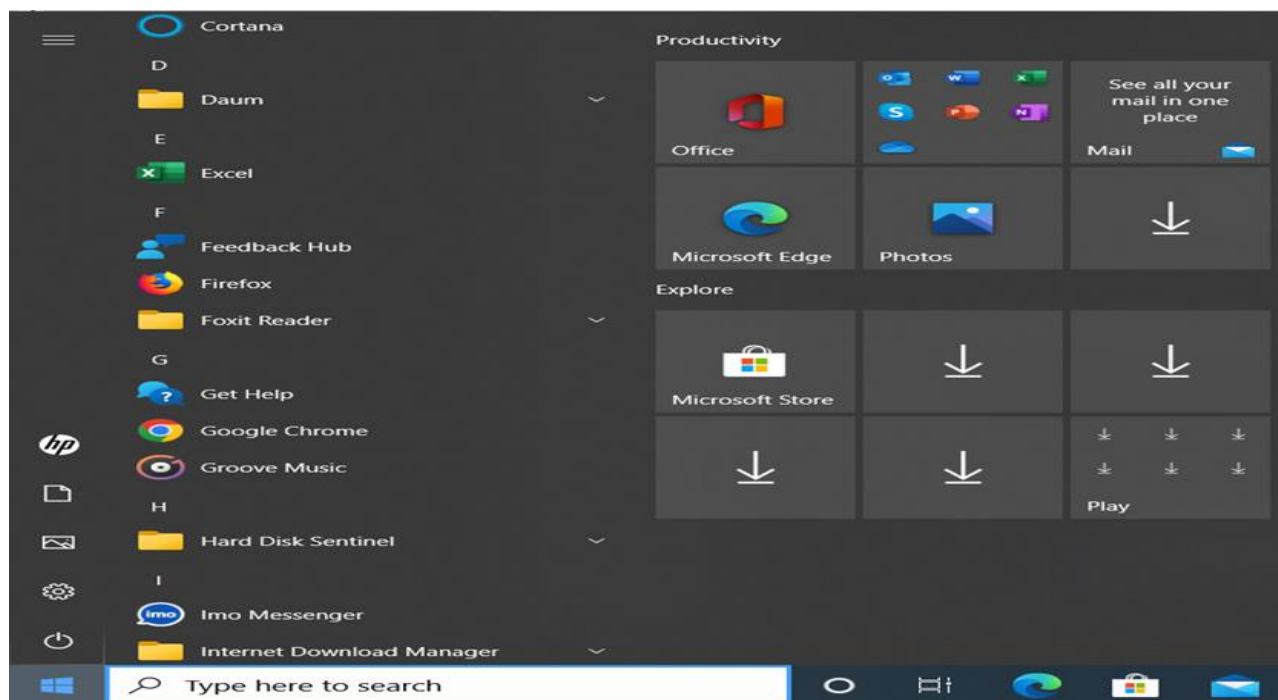Start→ All Application→Microsoft Office→Microsoft Excel

Fig1.1 window taskbar

When you open Excel 2016 for the first time, the **Excel Start Screen** will appear. From here, you'll be able to create a **new workbook**, choose a **template**, and access your **recently edited workbooks**.

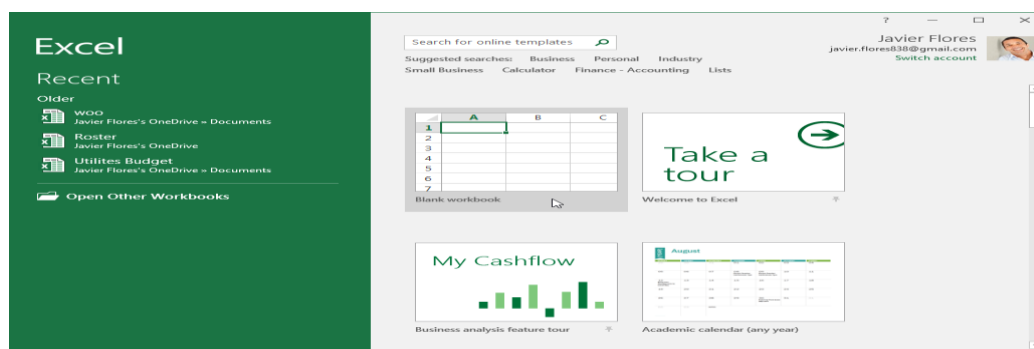From the **Excel Start Screen**, locate and select **Blank workbook** to access the Excel interface.

Fig1.2 Excel Start Screen

Click the buttons in the elbow to become familiar with the Excel interface.
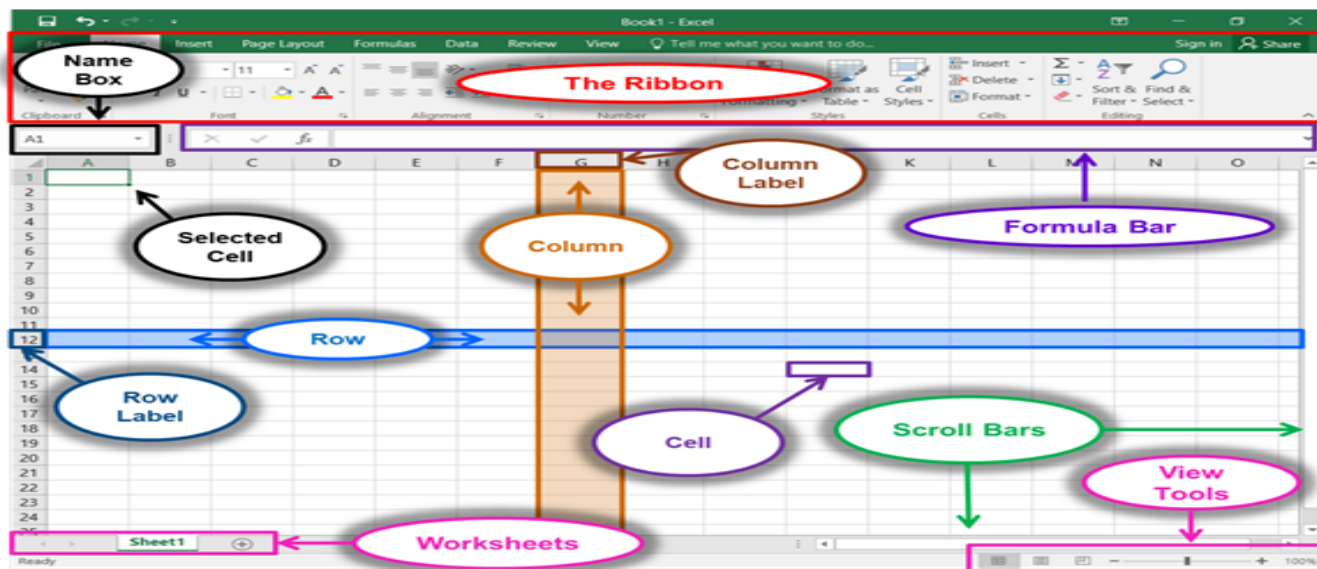
Open Excel and locate the parts of the Excel window .

Fig 1.3 excels interface

- **Name Box**: Displays the currently selected sell.

- **Formula Bar**: Displays the number, text, or formula that is in the currently selected cell, and allows you to edit it. It behaves just like a **text box**.

- **Selected Cell**: The selected cell has a dark border around it.

- **Column**: Columns run vertically (top to bottom).

- **Column Label**: Identifies each column with a letter. Clicking on a column label selects the entire column.

- **Row**: Rows run horizontally (left to right).

- **Row Label**: Identifies each row with a number. Clicking on a row label selects the entire row.

- **Cell**: The intersection of a row and column.

- **Worksheets**: The worksheets contained in the workbook are displayed at the bottom-left of the screen. Click on a worksheet to view it.

- **Scroll Bars**: Used to view other parts of a worksheet when the entire worksheet cannot fit on the screen.

- **View Tools**: See Status Bar next

1.2.2 Open spreadsheet To create a new blank workbook:

1. Select the File tab. Backstage view will appear.

Fig1.4 file tab
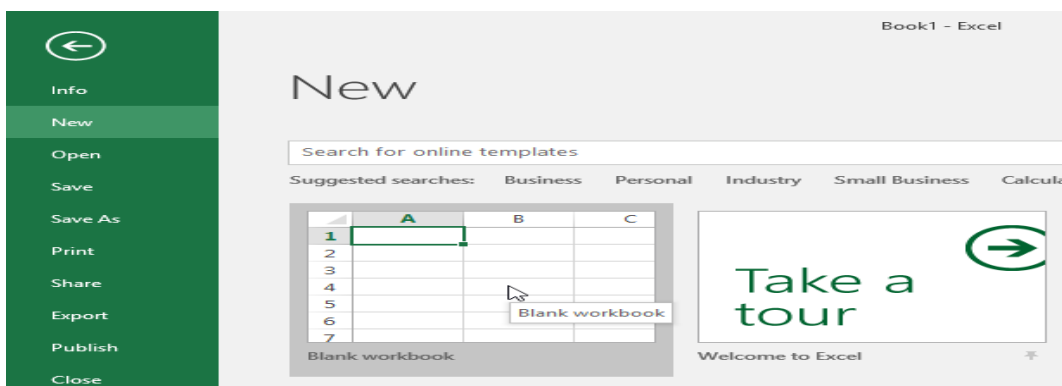
2. Select New, then click Blank workbook.

Fig 1.5 Blank workbook

3. A new blank workbook will appear.

To open an existing workbook:

In addition to creating new workbooks, you'll often need to open a workbook that was previously saved.

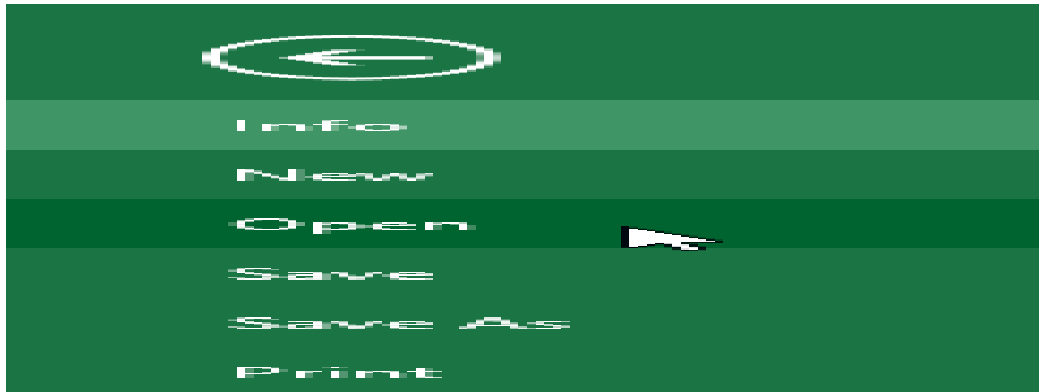1. Navigate to Backstage view, then click Open.

Fig 1.6 backstage view

2. Select Computer, then click Browse. Alternatively, you can choose OneDrive to open files stored on your OneDrive.
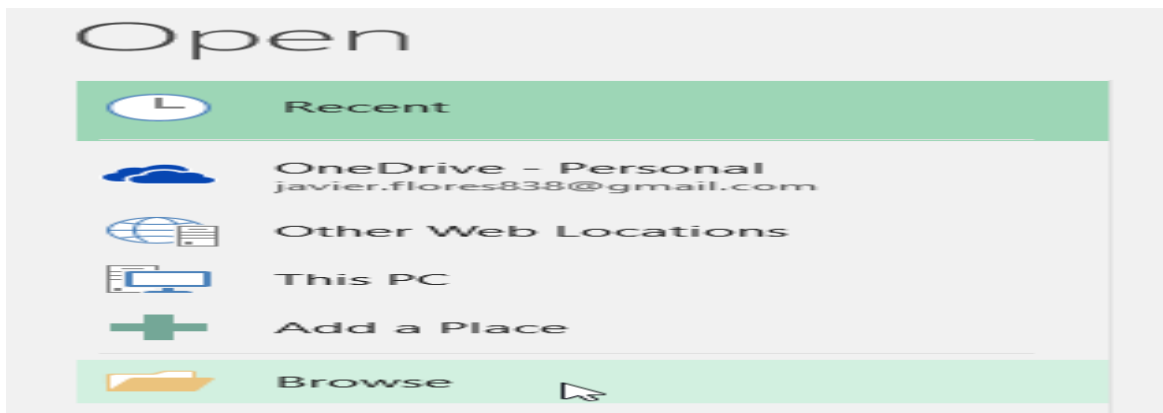
Fig 1.7 save location

3. The Open dialog box will appear. Locate and select your workbook, then click Open.
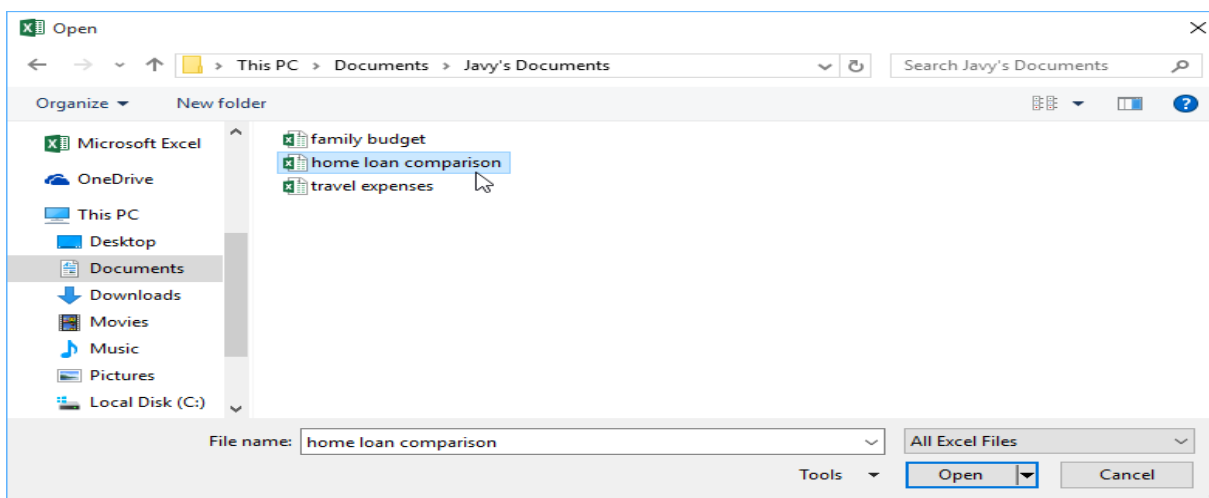
Fig 1.8 open dialog box

1.2.3 Enter numbers, text and symbols into cells

1. Click cell location A2 on the worksheet.

2. Type the word **Month**.

3. Press the RIGHT ARROW key. This will enter the word into cell A2 and activate the next cell to the right.

4. Type **Unit Sales** and press the RIGHT ARROW key.

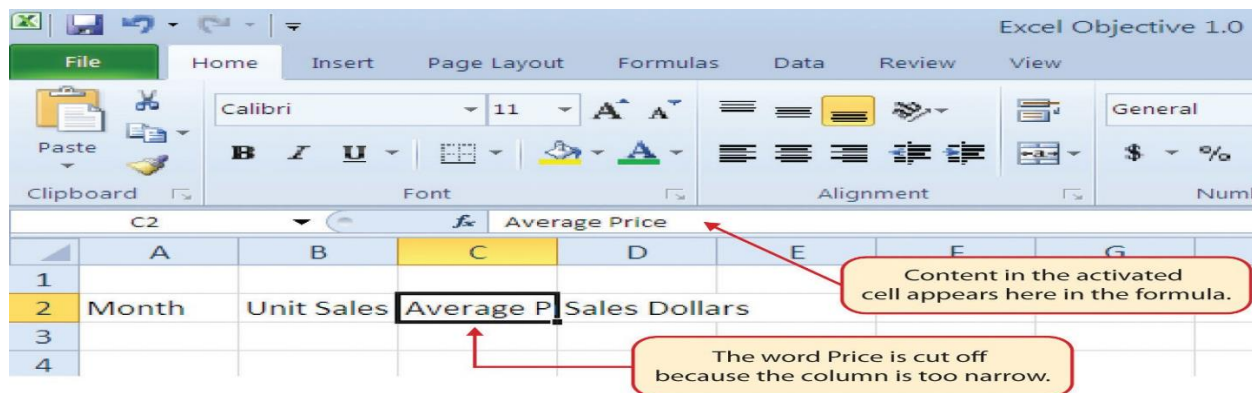5. Repeat step 4 for the words **Average Price** and then again for **Sales Dollars**

Figure 1.9 Entering Column Headings into a Worksheet

1. Click cell location B3.

2. Type the number **2670** and press the ENTER key. After you press the ENTER key, cell B4 will be activated. Using the ENTER key is an efficient way to enter data vertically down a column.

3. Enter the following numbers in cells B4 through

   B14: **2160**, **515, 590, 1030, 2875, 2700, 900, 775, 1180, 1800**, and **3560**.

4. Click cell location C3.

5. Type the number **9.99** and press the ENTER key.

6. Enter the following numbers in cells C4 through

   C14: **12.49, 14.99, 17.49, 14.99, 12.49, 9.99, 19.99, 19.99, 19.99, 17.49**, and **14.99**.

7. Activate cell location D3.

8. Type the number 26685 and press the ENTER key.

9. Enter the following numbers in cells D4 through

   D14: **26937, 7701, 10269, 15405, 35916, 26937, 17958, 15708, 23562, 31416**, and **53370**.

10. When finished, check that the data you entered matches
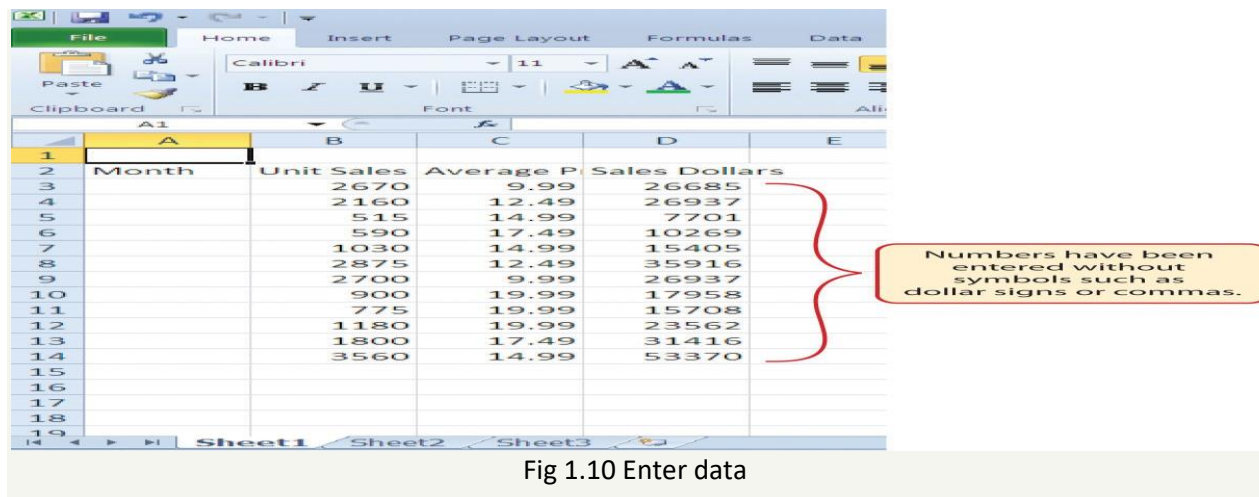
Fig 1.10 Enter data

1.3 Enter simple formula and function use cell reference

Create formulas

Formulas are one of the most commonly used features of Excel. They can be used to carry out simple addition and subtraction or far more complex mathematical calculations

Mathematical operators

Excel uses standard operators for formulas, such as a plus sign for addition (+), a minus sign for subtraction (-), an asterisk for multiplication (*), a forward slash for division (/), and a caret (^) for exponents.

Addition	+
Subtraction	-
Multiplication	*
Division	/
Exponents	^

All formulas in Excel must begin with an equals sign (=). This is because the cell contains, or is equal to, the formula and the value it calculates.

The order of operations

Excel calculates formulas based on the following order of operations:

1. Operations enclosed in parentheses
2. Exponential calculations (3^2, for example)
3. Multiplication and division, whichever comes first
4. Addition and subtraction, whichever comes first

A mnemonic that can help you remember the order is PEMDAS,

or Please Excuse My Dear Aunt Sally.

Click the arrows in the slideshow below to learn how the order of operations is used to calculate formulas in Excel.

<u>Operators</u> – Operator is a sign or symbol that specifies the type of calculation such as; Addition (+), Subtraction (-) and Multiplication (*).

```
                                        Arithmetic Operator


                                        Text Operator

    Operators

                                        Comparison (Logical) Operators


                                        Reference Operator
```
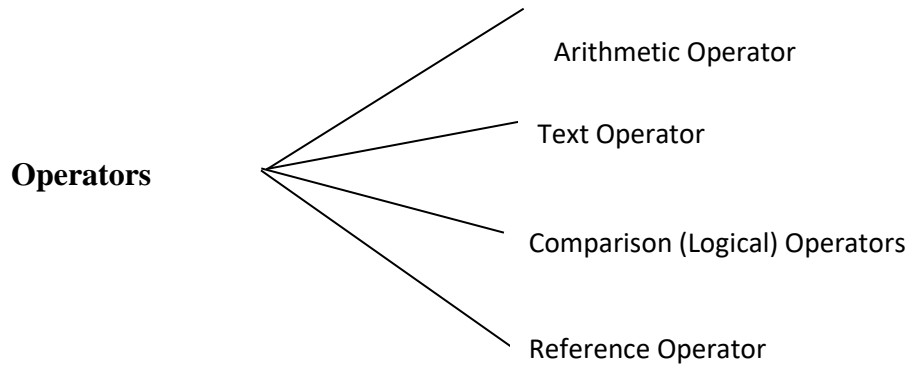
Arithmetic Operators

Operators	Symbol	Priority
Bracket operator	( )	1st
Exponential	^	2nd
Multiplication Division	*, /	3rd
Addition, Subtraction	+, -	4th

Text Operators (&) :-is an ampersand symbol that used to concatenate or connect two pieces of text values in to a single combined text value. i.e the two text operands should be enclosed with double quotation marks.

Example "Micro" & "Soft" produce the concatenate word "Microsoft"

Comparison or Logical Operators is using comparison operators you can compare two or more operands and produce the logical value True or False.

Operators	Symbols
- Equal to--	=
- Grater than---	>
- Less than---	<
- Greater than or equal than--	>=
- Less than or equal to ---	<=
- Not equal to --	< >

Reference Operator - References are actual cell address in the worksheet.

The basic MS-Excel reference operators are;

: (Colon) – a range reference that refers all cells or sheets between and including the two references specified.

, (Comma) – a union operator that combines multiple non-adjacent references in to one references.

Single Space – an intersection operator that produces one reference from the cells or ranges that have references in common.
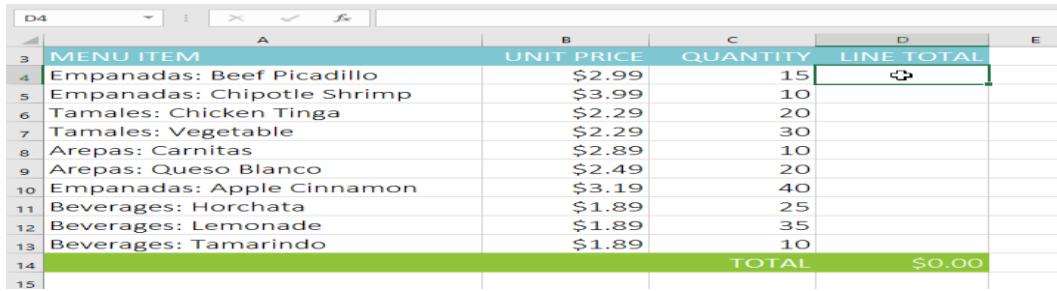
!(Exclamation Mark) – Used to separate sheet names from cell references.

There are two types of cell references: **relative** and **absolute**. Relative and absolute references behave differently when copied and filled to other cells. Relative references **change** when a formula is copied to another cell. Absolute references, on the other hand, remain **constant** no matter where they are copied.

A. To create and copy a formula using relative references:

In the following example, we want to create a formula that will multiply each item's **price** by the **quantity**. Instead of creating a new formula for each row, we can create a single formula in cell **D4** and then copy it to the other rows. We'll use relative references so the formula calculates the total for each item correctly.

1. Select the **cell** that will contain the formula. In our example, we'll select cell **D4**.

Fig1.11 select cell

2. Enter the **formula** to calculate the desired value. In our example, we'll type **=B4*C4**.

Fig 1.12 enter formula

3. Press **Enter** on your keyboard. The formula will be calculated, and the result will be displayed in the cell.

4. Locate the **fill handle** in the bottom-right corner of the desired cell. In our example, we'll locate the fill handle for cell **D4**.

Fig 1.13 Fill handle

5. Click and drag the **fill handle** over the cells you want to fill. In our example, we'll select cells **D5:D13**.

Fig1.14 formula will be copy

6. Release the mouse. The formula will be **copied** to the selected cells with **relative references**, displaying the result in each cell.

Fig 1.15 fill cells

You can double-click the **filled cells** to check their formulas for accuracy. The relative cell references should be different for each cell, depending on their rows.

Fig 1.16 check formula accuracy

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	Author/Copyright		

B. Absolute references

There may be times when you do not want a cell reference to change when filling cells. Unlike relative references, **absolute references** do not change when copied or filled. You can use an absolute reference to keep a row and/or column **constant**.

An absolute reference is designated in a formula by the addition of a **dollar sign ($)** before the column and row. If it precedes the column or row (but not both), it's known as a **mixed reference**.

A2	The column and the row do not change when copied
A$2	The row does not change when copied
$A2	The column does not change when copied

You will use the relative (**A2**) and absolute (**A2**) formats in most formulas. Mixed references are used less frequently.

When writing a formula in Microsoft Excel, you can press the **F4** key on your keyboard to switch between relative, absolute, and mixed cell references. This is an easy way to quickly insert an absolute reference.

To create and copy a formula using absolute references:

In the example below, we're going to use cell **E2** (which contains the tax rate at 7.5%) to calculate the sales tax for each item in **column D**. To make sure the reference to the tax rate stays constant—even when the formula is copied and filled to other cells—we'll need to make cell **E2** an absolute reference.
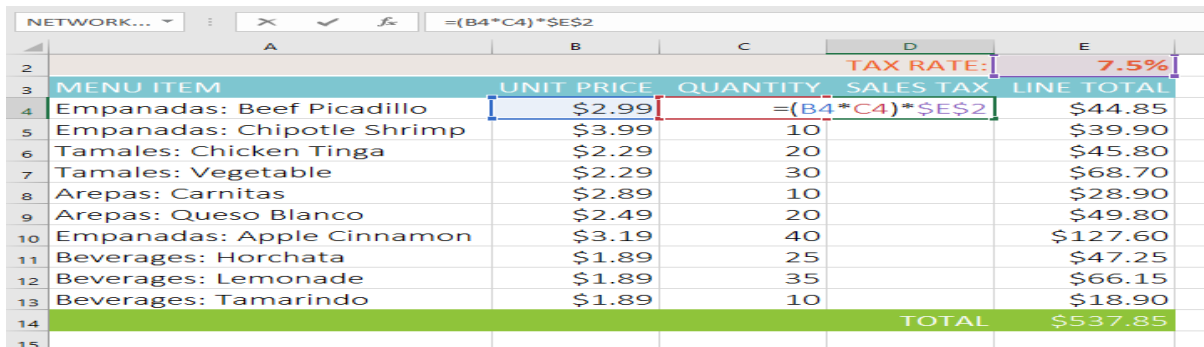
1. Select the **cell** that will contain the formula. In our example, we'll select cell **D4**.

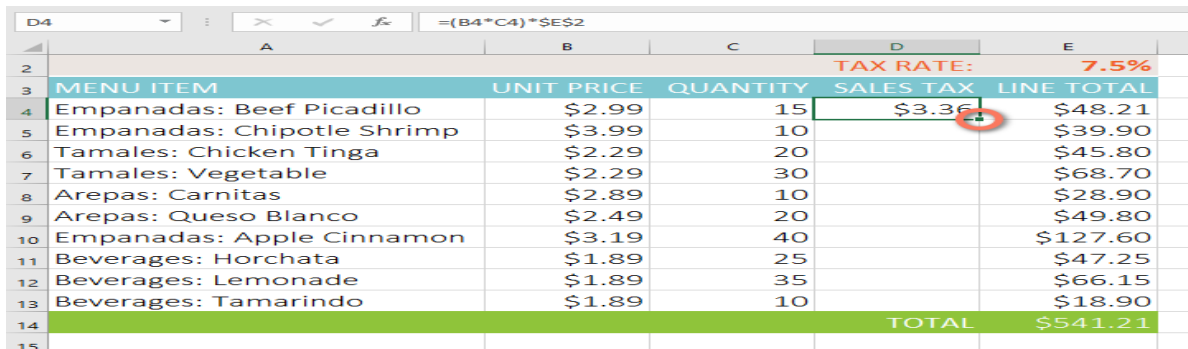|	A	B	C	D	E
2				TAX RATE:	7.5%
3	MENU ITEM	UNIT PRICE	QUANTITY	SALES TAX	LINE TOTAL
4	Empanadas: Beef Picadillo	$2.99	15		$44.85
5	Empanadas: Chipotle Shrimp	$3.99	10		$39.90
6	Tamales: Chicken Tinga	$2.29	20		$45.80
7	Tamales: Vegetable	$2.29	30		$68.70
8	Arepas: Carnitas	$2.89	10		$28.90
9	Arepas: Queso Blanco	$2.49	20		$49.80
10	Empanadas: Apple Cinnamon	$3.19	40		$127.60
11	Beverages: Horchata	$1.89	25		$47.25
12	Beverages: Lemonade	$1.89	35		$66.15
13	Beverages: Tamarindo	$1.89	10		$18.90
14				TOTAL	$537.85
15					

Fig 1.17 select cell in absolute reference

2. Enter the **formula** to calculate the desired value. In our example, we'll type =**(B4*C4)*E2**, making **E2** an absolute reference.

Fig 1.18 enter formula

3. Press **Enter** on your keyboard. The formula will calculate, and the result will display in the cell.

4. Locate the **fill handle** in the bottom-right corner of the desired cell. In our example, we'll locate the fill handle for cell **D4**.

Fig 1.19 fill handle
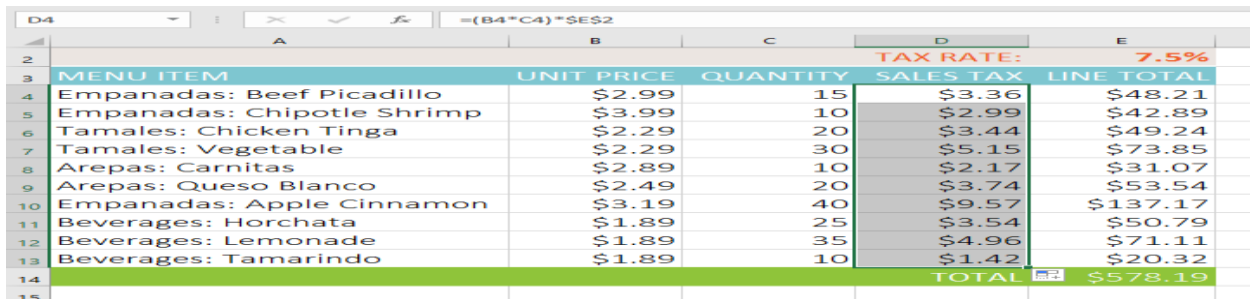
5.Click and drag the **fill handle** over the cells you want to fill (cells **D5:D13** in our example).
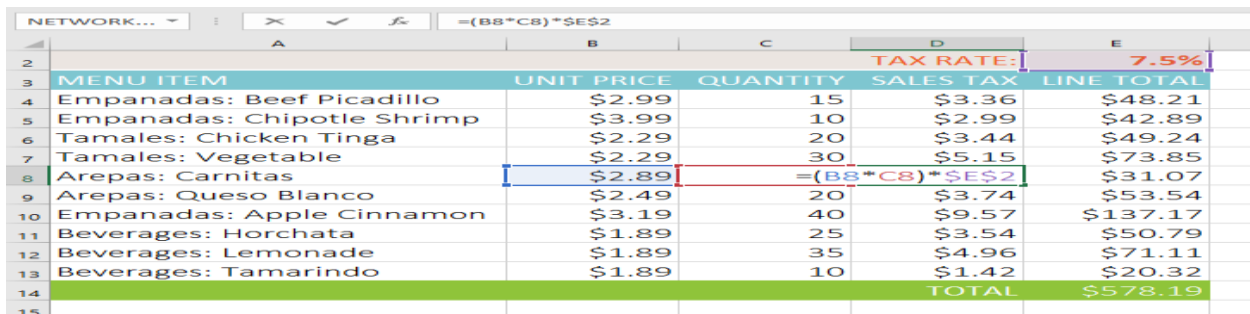

Fig 1.20 drag fill handle

6.Release the mouse. The formula will be **copied** to the selected cells with
an **absolute reference**, and the values will be calculated in each cell.
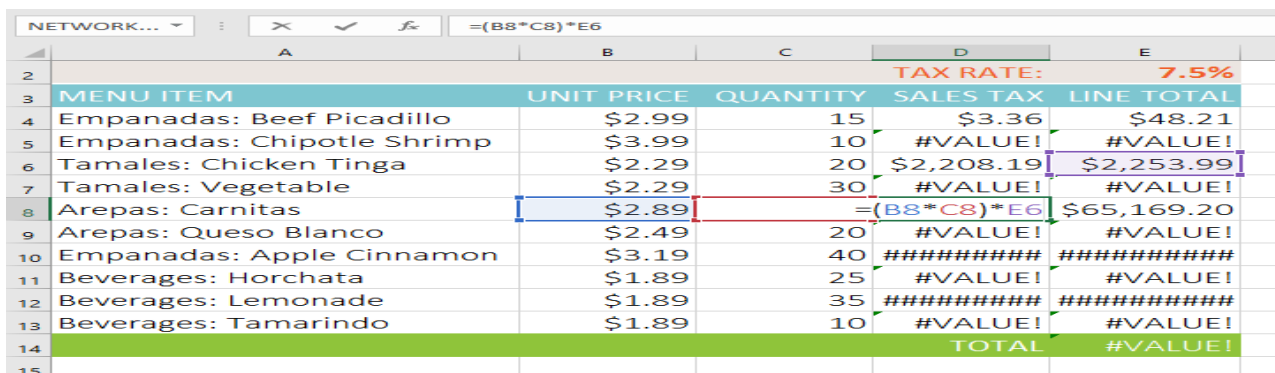

Fig 1.21 calculated value

You can double-click the **filled cells** to check their formulas for accuracy. The absolute reference
should be the same for each cell, while the other references are relative to the cell's row.

Fig 1.22check the formula

Be sure to include the **dollar sign ($)** whenever you're making an absolute reference across
multiple cells. The dollar signs were omitted in the example below. This caused Excel to
interpret it as a **relative reference**, producing an incorrect result when copied to other cells.

Fig 1.23 dollar sign omitted

1.3.2 Function

A **function** is a **predefined formula** that performs calculations using specific values in a particular order. Excel includes many common functions that can be used to quickly find the **sum**, **average**, **count**, **maximum value**, and **minimum value** for a range of cells. In order to use functions correctly, you'll need to understand the different **parts of a function** and how to create **arguments** to calculate values and cell references.

In order to work correctly, a function must be written a specific way, which is called the **syntax**. The basic syntax for a function is the **equals sign (=)**, the **function name** (SUM, for example), and one or more **arguments**. Arguments contain the information you want to calculate. The function in the example below would add the values of the cell range A1:A20.

Arguments can refer to both **individual cells** and **cell ranges** and must be enclosed within **parentheses**. You can include one argument or multiple arguments, depending on the syntax required for the function.

For example, the function **=AVERAGE(B1:B9)** would calculate the **average** of the values in the cell range B1:B9. This function contains only one argument.
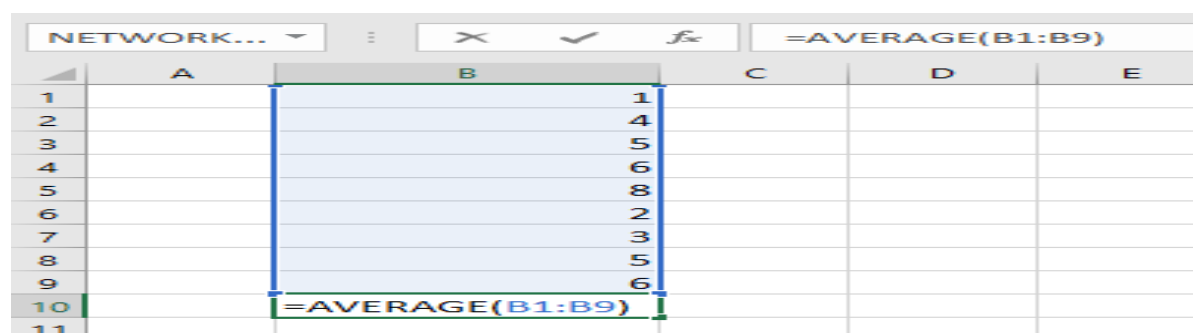

Fig 1.24 one argument

Multiple arguments must be separated by a **comma**. For example, the function **=SUM(A1:A3, C1:C2, E1)** will **add** the values of all of the cells in the three arguments.
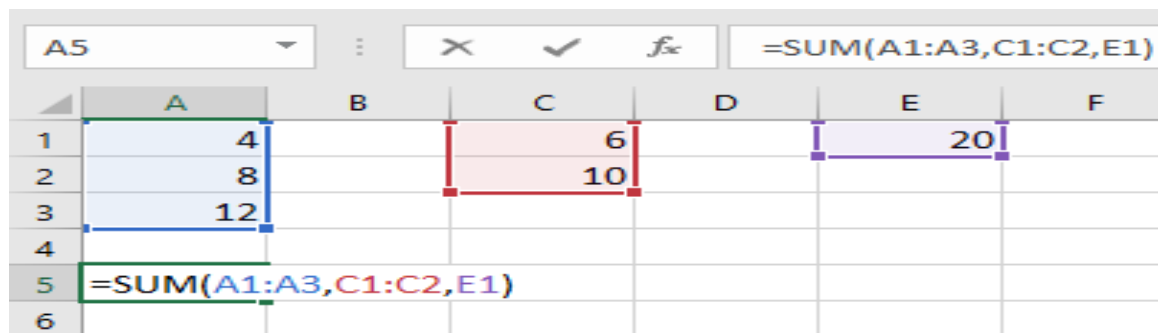
Fig 1.25 multiple argument
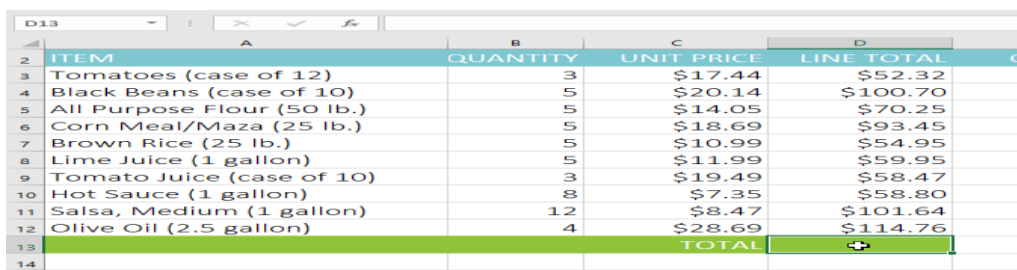
Creating a function

There are a variety of functions available in Excel. Here are some of the most common functions you'll use:

- **SUM**: This function **adds** all of the values of the cells in the argument.
- **AVERAGE**: This function determines the **average** of the values included in the argument. It calculates the sum of the cells and then divides that value by the number of cells in the argument.
- **COUNT**: This function **counts** the number of cells with numerical data in the argument. This function is useful for quickly counting items in a cell range.
- **MAX**: This function determines the **highest cell value** included in the argument.
- **MIN**: This function determines the **lowest cell value** included in the argument.

To create a function using the AutoSum command:

The **AutoSum** command allows you to automatically insert the most common functions into your formula, including SUM, AVERAGE, COUNT, MIN, and MAX. In the example below, we'll use the **SUM** function to calculate the **total cost** for a list of recently ordered items.

1. Select the **cell** that will contain the function. In our example, we'll select cell **D13**.

Fig 1.26 select cell

2. In the **Editing** group on the **Home** tab, click the **arrow** next to the **AutoSum** command. Next, choose the **desired function** from the drop-down menu. In our example, we'll select **Sum**.
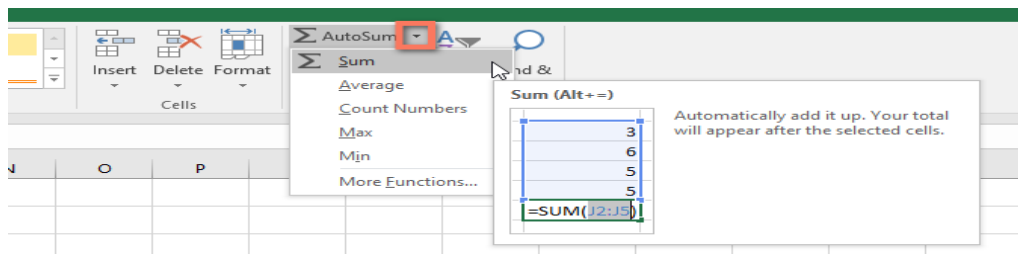
Fig 2.27 edit group

3. Excel will place the **function** in the cell and automatically select a **cell range** for the argument. In our example, cells **D3:D12** were selected automatically; their values will be **added** to calculate the total cost. If Excel selects the wrong cell range, you can manually enter the desired cells into the argument.

Fig 1.28 automatically cell rang

4. Press **Enter** on your keyboard. The function will be **calculated**, and the **result** will appear in the cell. In our example, the sum of D3:D12 is **$765.29**.

Fig 1.29 Result

The **AutoSum** command can also be accessed from the **Formulas** tab on the **Ribbon**.
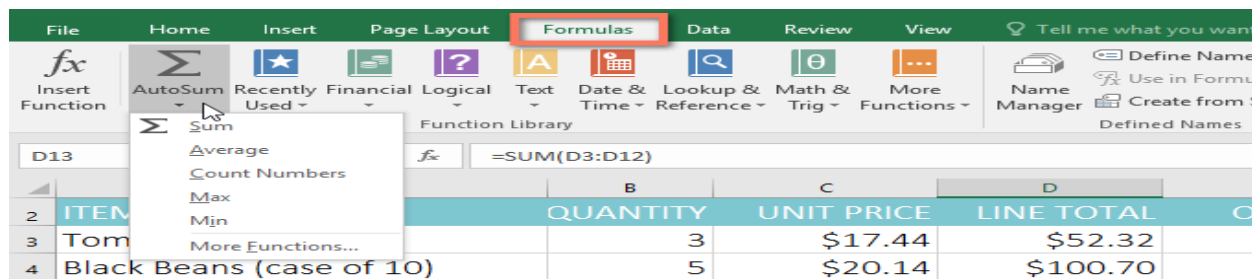
Fig 1.30 Auto sum

You can also use the **Alt+=** keyboard shortcut instead of the AutoSum command. To use this shortcut, hold down the **Alt** key and then press the **equals sign**.

1.4   Correct formulas

Sometimes Excel comes across a formula that it cannot calculate. When this happens, it displays an error value. Error values occur because of incorrectly written formulas, referencing cells or data that don't exist, or breaking the fundamental laws of mathematics.

Error

The #### error occurs when the column isn't wide enough to fit the cell data.

1. Double-click the line to the right of the column letter for the column containing the error.
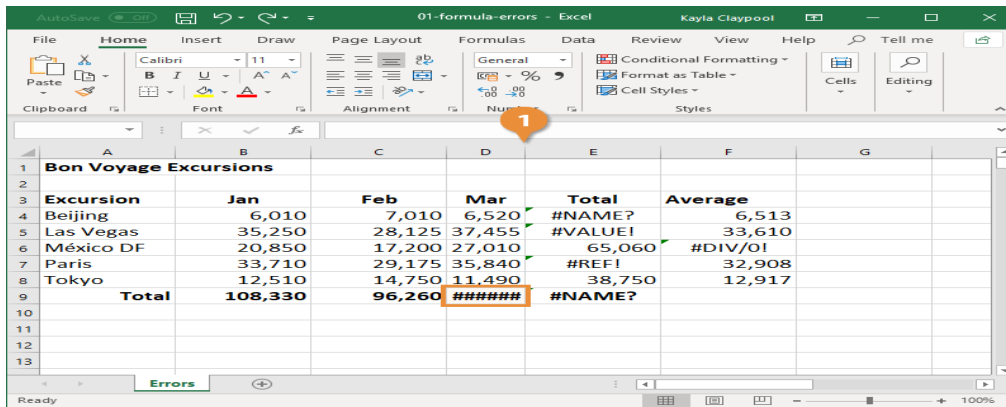
Fig 1.31 column narrow width

The column width automatically resizes to fit the widest string of text in the column, thus fixing the error.

To resize all columns in the sheet at once, click the Select All button in the upper-left of the worksheet before resizing a column's width.

NAME Error

You'll see the #NAME? error when the text in the formula isn't recognized. Sometimes it's easy to figure out the error, but other times you'll need help to determine what's happening. For this example, you'll use Excel's Error Checking feature to help fix the problem.

1. Select the cell with the #NAME? error.
2. Click the **Formulas** tab.
3. Click the **Error Checking** button.
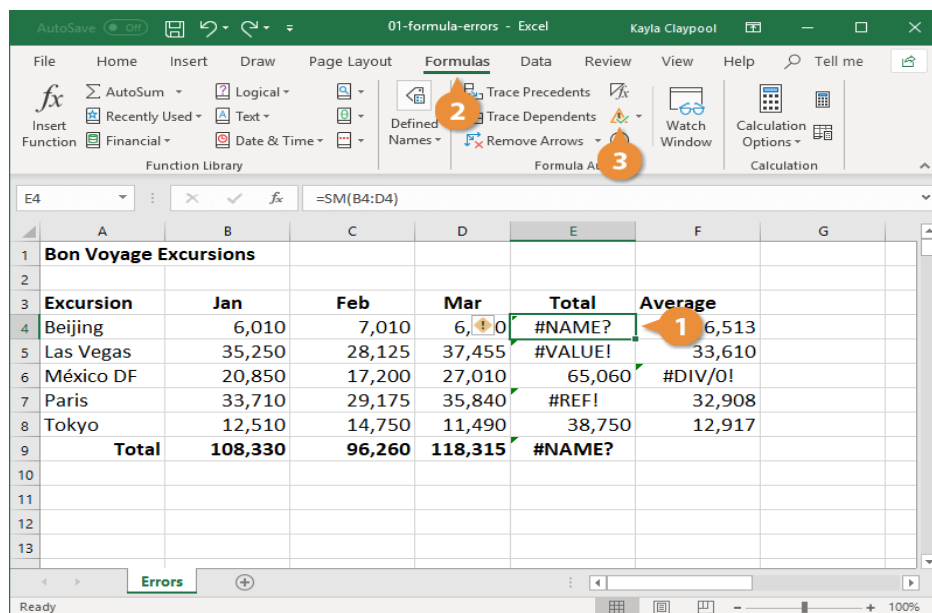
Fig 1.32 error check button

The Error Checking dialog box opens. The left side of the dialog box shows the formula that's causing the error and gives a description of what's happening.

4. Select an error checking option at the right and fix the error.

- **Help on This Error:** Displays information specific to the error type.

- **Show Calculation Steps:** Demonstrates all steps leading to the error.

- **Ignore Error:** Allows you to accept the formula as entered, without Excel displaying the Error Checking Options smart tag.

- **Edit in Formula Bar:** Allows you to edit the formula that is generating the error in the Formula Bar.

5. Close the dialog box.
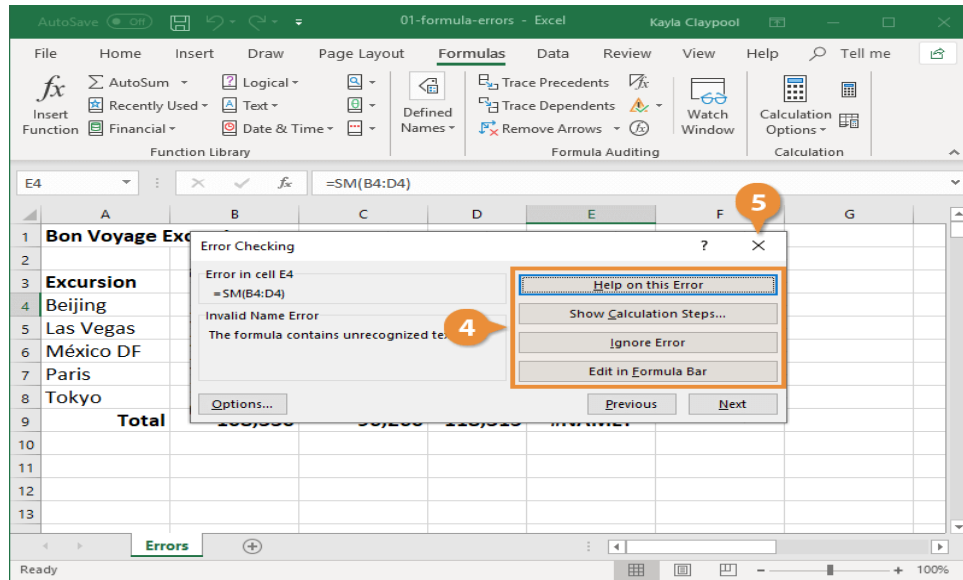
Fig 1.33 close dialog box

The #NAME? error in the cell is replaced with the corrected formula.

VALUE! Error

The #VALUE! error tells you there's something wrong with the cells you're referencing or with the way the formula is typed. This is a very general error and it can be tricky to pinpoint the cause of it. This example uses the Trace Precedents feature to help fix the error.

1. Select the cell with the #VALUE! error.
2. Click the **Trace Precedents** button on the Formulas tab.
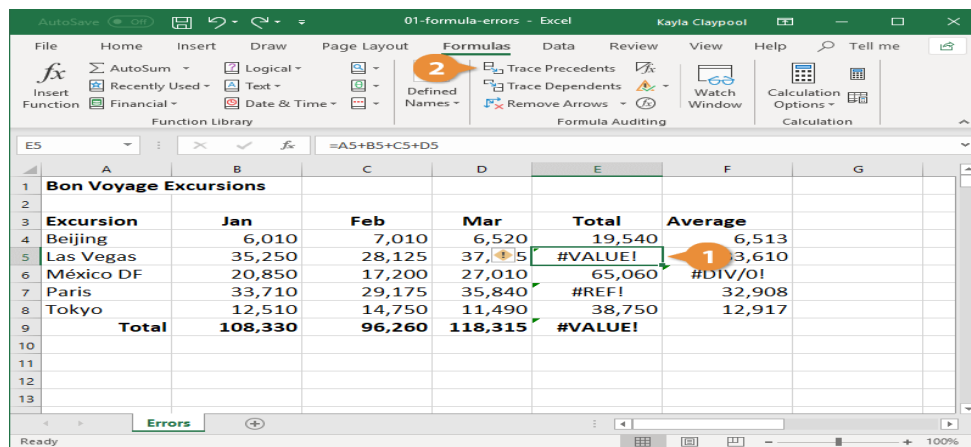
Fig 1.34 click trace precedents

Trace Precedents shows dots that indicate which cells affect the value of the currently selected cell. This helps to visually locate the error.

3. Locate the cell that's causing the error.

4. Correct the formula in the formula bar.

5. Click or press **Enter**.
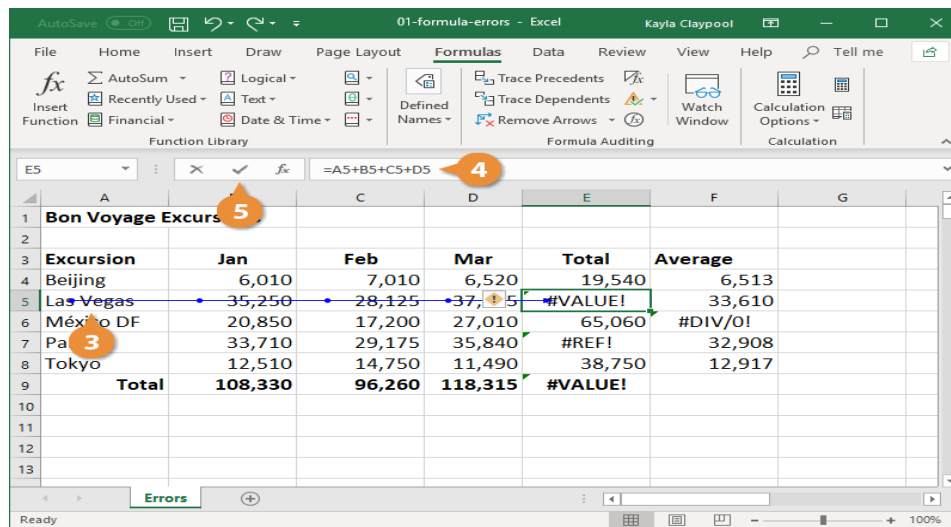
Fig 1.35 precedence show

The formula updates to display the correct result and the #VALUE! error disappears.

DIV/0! Error

You will see the #DIV/0! Error any time a number is divided by zero. This includes typing "/0" in a formula or referencing a cell to divide by that contains 0 or is blank.

1. Select the cell with the error.

2. Click in the formula bar and fix the error.

3. Click or press **Enter**.
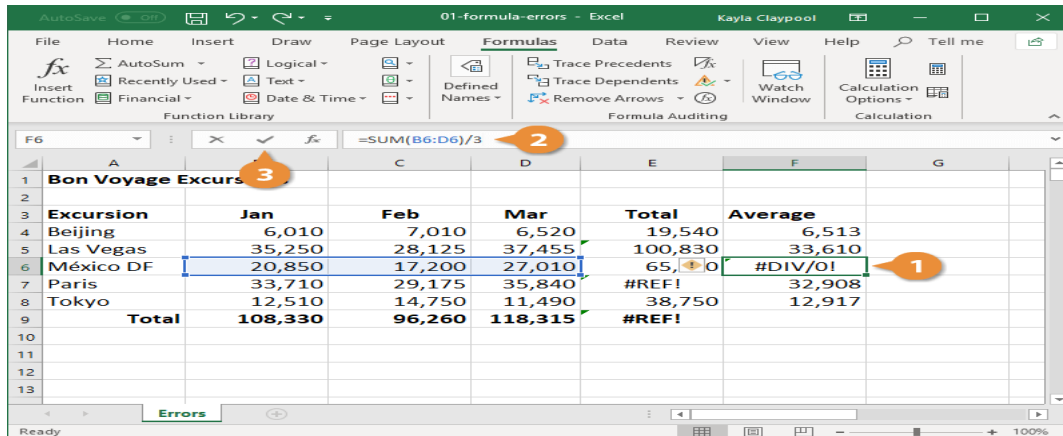
Fig 1.36 click enter

The cell updates to the correct result and the #DIV/0! Error is fixed.

REF! Error

You will get the #REF! error when a formula references a cell that's not valid. This often happens when referenced cells get deleted or pasted over.

1. Select the cell with the #REF! error.

2. Click in the formula bar and fix the error.

3. Click or press **Enter**.
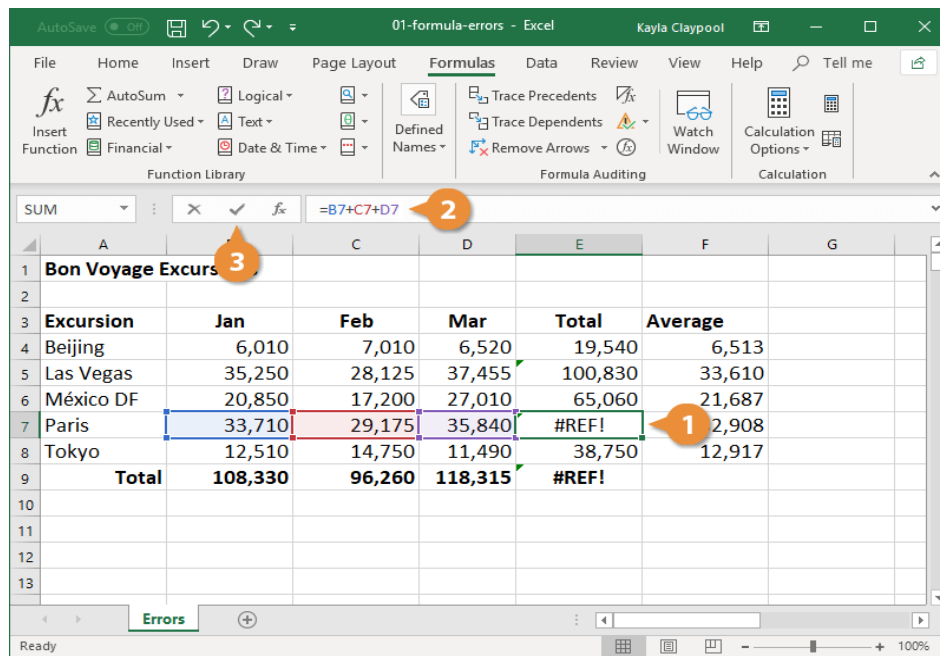
Fig 1.37 formula invalid

The cell reference is now valid and the #REF! error no longer displays.

1.5 Edite column and row within the spreadsheet

By default, every row and column of a new workbook is set to the same **height** and **width**. Excel allows you to modify column width and row height in different ways, including **wrapping text** and **merging cells**.

To modify column width:

In our example below, column C is too narrow to display all of the content in these cells. We can make all of this content visible by changing the **width** of column C.
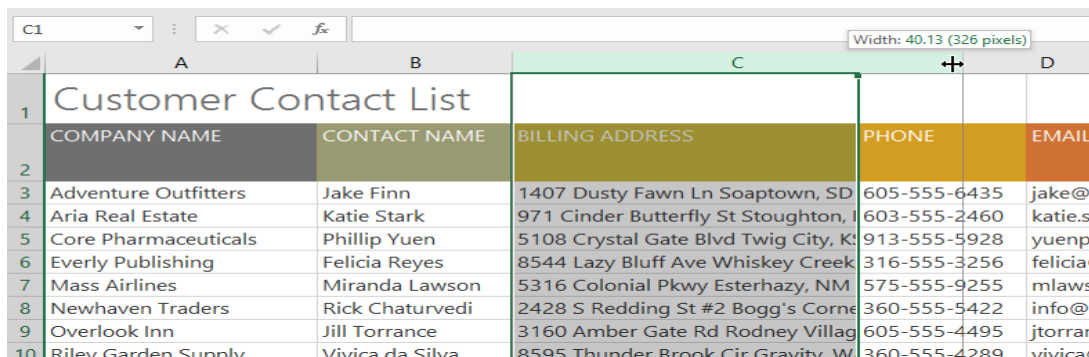
1. Position the mouse over the **column line** in the **column heading** so the cursor becomes a **double arrow**.

Fig 1.38 mouse position

2. Click and drag the mouse to **increase** or **decrease** the column width.

Fig 1.39 click and drag mouse

3. Release the mouse. The **column width** will be changed.

Fig 1.40 column width change

With numerical data, the cell will display **pound signs** (#######) if the column is too narrow.

Simply **increase the column width** to make the data visible.

1.6 use AutoFill function to increment data in Excel

You will learn how to fill down series of numbers, dates and other data, create and use custom lists in Excel.

Fig 1.41 *fill down series*

<table>
<tr><td>**Ministry of Labor and Skills**</td><td>Operate Spreadsheet Application</td><td>Date: September 2022</td></tr>
<tr><td>**Author/Copyright**</td><td></td><td>Version: 1</td></tr>
</table>

1.7 Save spreadsheet

It's important to **save your workbook** whenever you start a new project or make changes to an existing one. Saving early and often can prevent your work from being lost.

1. Locate and select the **Save** command on the **Quick Access Toolbar**.
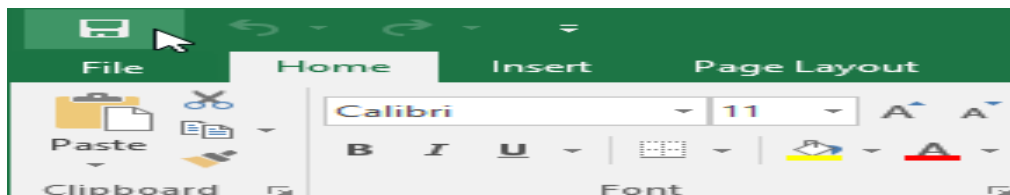
Fig 1.43 file tab

2. If you're saving the file for the first time, the **Save As** pane will appear in **Backstage view**.

3. You'll then need to choose **where to save** the file and give it a **file name**. To save the workbook to your computer, select **Computer**, then click **Browse**. Alternatively, you can click **OneDrive** to save the file to your OneDrive.
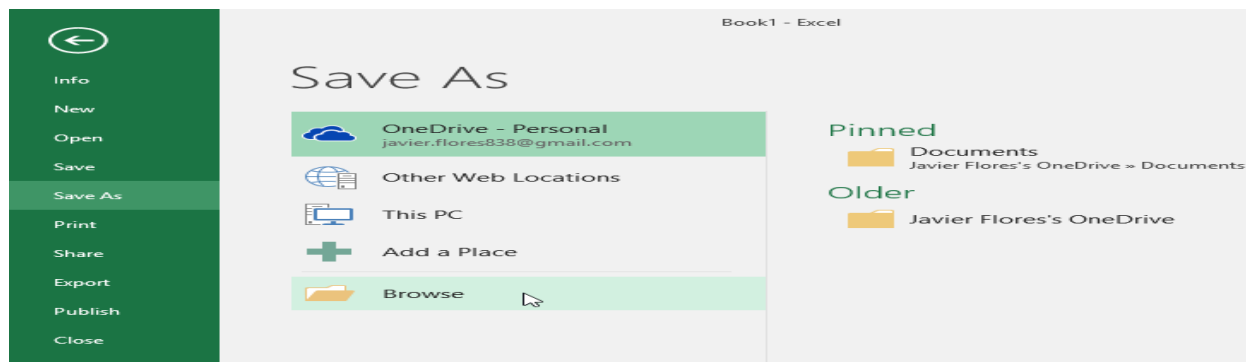
Fig1.42 save as pan

4. The **Save As** dialog box will appear. Select the **location** where you want to save the workbook.

5. Enter a **file name** for the workbook, then click **Save**.
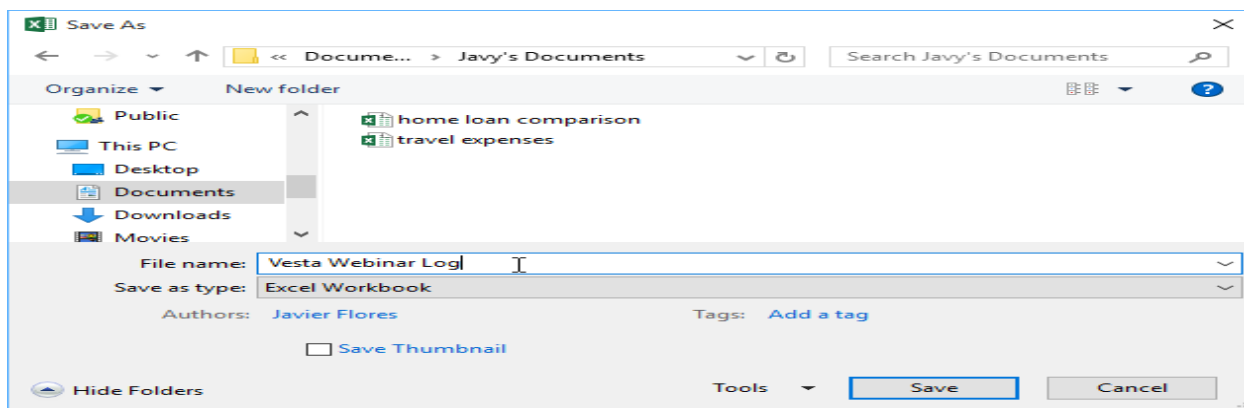
Fig 1.44 dialog box

6. The workbook will be **saved**. You can click the **Save** command again to save your changes as you modify the workbook.

You can also access the **Save** command by pressing **Ctrl+S** on your keyboard.

Self-check-1

Test-I Multiple choices.

Instruction: Answer the following questions and put your answer.

I. Choose the correct answer from the given alternatives

1. Star Office Calc has a variety of

    A. Buttons   C. Options

    B. Functions   D. All

2. The cells are addressed in terms of

A. Row and column labels   C. Rows

B. Row labels   D. Columns

3. Which of the following data can be typed into a Spreadsheet cell?

(A) Formulae   (C) Numbers

(B) Text   (D) All of these

4. Which bar is used to display options?

(A) Menu   (C) Formula

(B) Function   (D) Status

5. The intersection of rows and columns creates

(A) Cells

(B) Worksheets

(C) Spreadsheets

(D) None of these

6. A group of cells is called a _____.

A. cell cluster   B. multicell

C. chart   D. cell range

7. The intersection of a row and a column is called a _____.

A. chart   B. worksheet

C. sum   D. cell

Operation title 1: Create spreadsheet

Purpose: -

- To familiarize with Microsoft excel 2016 environment.
- To know how to work formula, function, edit column and row and enter data into cell.

Instruction: The Given necessary equipment, tools and materials you are follow the necessary steps and use the given figure below (1.44), operate each task. You have given 1:30 hour for the task and you are expected to write the answer task.

			Payroll				
	A	B	C	D	E	F	G
1							
2	Date:	1/1/2011					
3	EMPL Number	EMPL Name	Hourly Rate	Hours Worked	Gross Pay	S.S Tax	Net Pay
4	E00001	Ford	7.5	35	?	?	?
5	E00002	Mino	8	30	?	?	?
6	?	Bell	6.5	25	?	?	?
7	?	Davis	9	40	?	?	?
8	?	Turro	10	39	?	?	?

Fig 1.44 payroll

Task1: Open a new workbook and save the file with the name "Payroll".

Task2: Enter the column/labels and values in the exact cells locations as desired.

Task3: Use AutoFill to put the Employee Numbers into cells A6:A8.

Task4: Set the columns width and rows height appropriately.

Task5: Set labels alignment appropriately.

Task6: Use warp text and merge cells as desired.

Task7: Apply borders, gridlines and shading to the table as desired.

Task8: Format cell B2 to Short Date format.

Task9: Format cells E4:G8 to include dollar sign with two decimal places.

Task10: Calculate the Gross Pay for employee; enter a formula in cell E4 to multiply Hourly Rate by Hours Worked.

Task11: Calculate the Social Security Tax (S.S Tax), which is 6% of the Gross Pay; enter a formula in cell F4 to multiply Gross Pay by 6%.

Task12: Calculate the Net Pay; enter a formula in cell G4 to subtract Social Security Tax from

Gross Pay.

13. Set the work sheet vertically and horizontally on the page.

14. Save your work.

Tools and requirement: - ICT room, computer, Printer, A4 paper, Mouse and keyboard,

Monitor, Basic Software, Documents and pen/pencil.

Precautions: Microsoft office is install.

Procedures:-in doing the task

Step-1: Click on start → All Application→Click Microsoft office excel 2016 → click blank

document

Step-2: enter data in to cell

Step-3: based on figure enter data each cell

Step-4: based on figure change format

Step-5: based on figure create formula and function

Step-6: the error is occurred to correct

Step-7: save the file based on the given

Quality Criteria: based on the figure check the task are properly done.

LAP Test 3	Practical Demonstration

Instruction: The given necessary equipment, tools and materials you are follow the necessary steps and use the given figure (1.)operate each task. You have given 1:30 hour for the task and you are expected to write the answer.

	A	B	C	D	E	F
1			Panda EST			
2			Monthly Sales Report - July			
3						
4	Emp. No.	Name	Salary	Sales Amount	Comission	Total Salary
5	S101	Ahmed	1600	2500	?	?
6	S105	Hassan	1800	3000		
7	S112	Ali	1500	2200		
8	S107	Waleed	2000	4500		
9	S110	Mohammed	1700	3500		
10	S103	Samir	1600	2500		
11						
12		Totals	?	?	?	?
13		Average	?	?	?	?
14		Highest	?	?	?	?
15		Lowest	?	?	?	?
16		Count	?			

Fig 1.45 panda EST

Task1: Create the worksheet shown above.

Task2: Set the column widths as follows: Column A: 8, Column B: 14, Columns C & D: 15, Columns E & F: 14.

Task3: Enter the formula to find COMMISSION for the first employee.

The commission rate is 2% of sales, COMMISSION = SALES * 2%

Copy the formula to the remaining employees.

Task4: Enter the formula to find TOTAL SALARY for the first employee where:

TOTAL SALARY = SALARY + COMMISSION

Copy the formula to the remaining employees.

Task5: Enter formula to find TOTALS, AVERAGE, HIGHEST, LOWEST, and COUNT values.

Copy the formula to each column.

Task6: Format numeric data to include commas and two decimal places.

Task7: Align all column title labels horizontally and vertically at the center.

Task8: Create a Header that includes your name in the left section, page number in the center section, and your ID number in the right section.

Task9: Create footer with DATE in the left section and TIME in the right section.

Task10: Save the file with name "LAB1"

Unit Two: Customize basic settings

This unit to provide you the necessary information regarding the following content coverage and topics:

- Adjust page layout

- Open and view different toolbars

- Change font settings

- Change alignment and line spacing

- Modify margin sizes

- View multiple spreadsheets concurrently

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Adjust page layout to meet user requirements or special needs

- Open and view different toolbars

- Change font settings so that they are appropriate for the purpose of the document

- Change alignment options and line spacing according to spreadsheet formatting features

- Modify margin sizes to suit the purpose of the spreadsheets

- View multiple spreadsheets concurrently

2.1 Adjust page layout

In Microsoft Excel there are several ways you can alter and edit the layout your work sheet.to begin, it is advisable to view your worksheet page layout view as this shows the margin and ruler as well as how the worksheet will appear when printed.
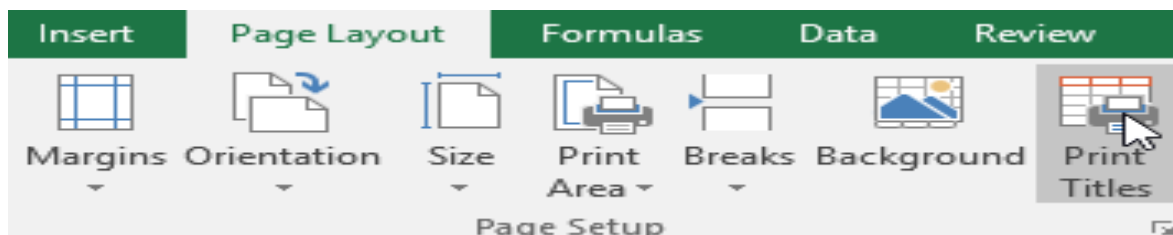
Fig 2.1 page layout tab

2.2 Open and view different toolbars
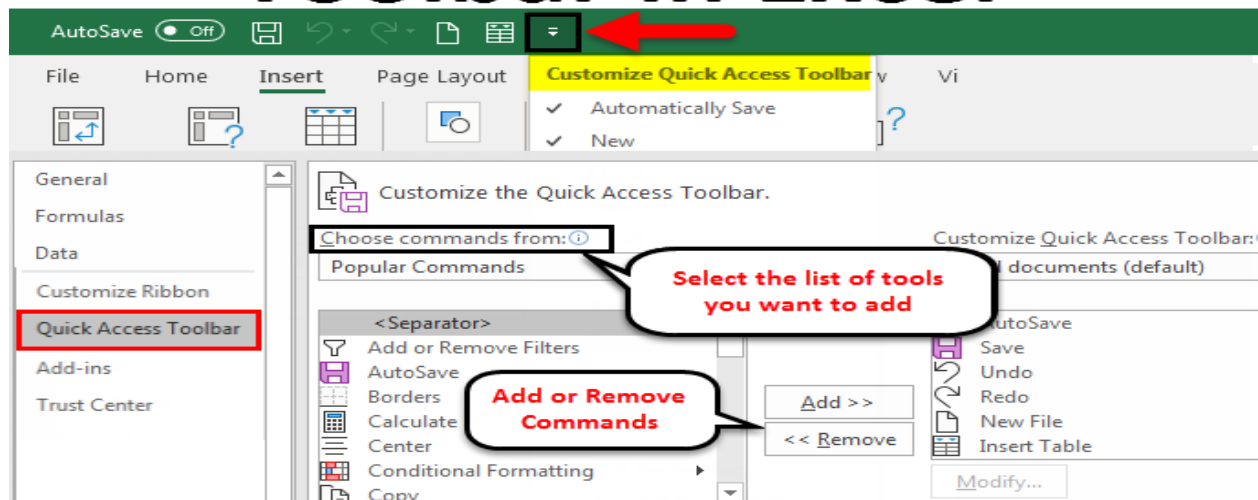
Fig 2.2 toolbar interface

The Toolbar is an area where you can add different commands or tools associated with excel. By default, it is located above the ribbon with different tools and visible in the Excel window's upper right corner. To increase customer friendliness, toolbars have become customizable according to the frequent use of different tools. Instead of a set of tools, excel gives us the option to select and build a Quick Access Toolbar

It is a symbolical representation of built-in options available in Excel. By default, it contains the below commands.

1. **Save:** To save the created workbook.

2. **Undo:** To return or step back one level of an immediate action performed.

3. **Redo:** Repeat the last action.

Use the Toolbar in Excel

The Toolbar in Excel is a shortcut tool to avoid searching for the commands you often use in the worksheet. Using Toolbar in Excel is easy, and it helps us simplify access to the document's commands. Let's understand the working of the Toolbar in Excel by some examples given below.

Adding Commands to the Toolbar in Excel

To get more tools, you have the option to customize the Quick Access Toolbar simply by adding the commands.

- Click on the downward-facing arrow at the end of the Toolbar in Excel. A pop up will be shown as **Customize Quick Access Toolbar.**

Fig 2.3 custom quick access toolbar

- From the dropdown, you will get a list of commonly used commands. Click any of the options that you want, and it will be added to the toolbar.
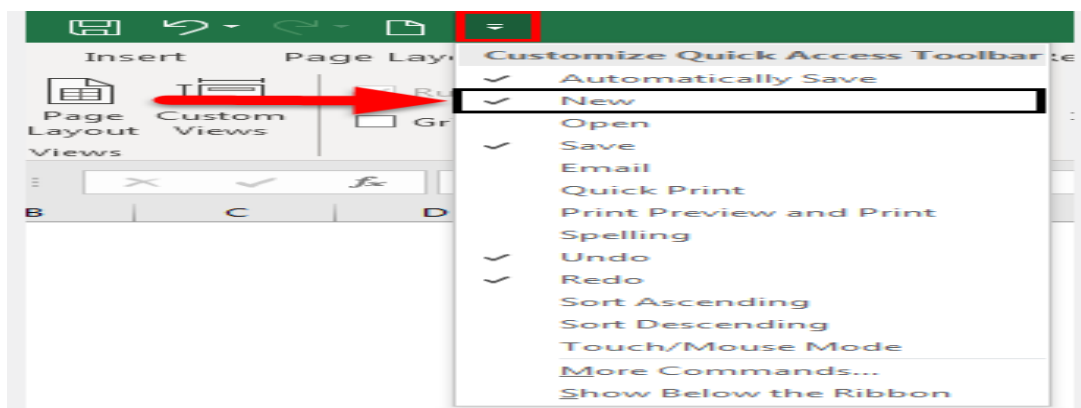
Fig 2.4 custom quick access list

- **A new** command is selected, and this will be added to the toolbar highlighted as the command is added with already available tools.
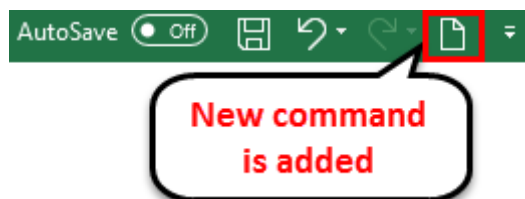
In a similar way, you can add the tools which you want to access quickly. So instead of clicking and finding the tools from the multiple hierarchies, you can access the option within a single click.

2.3 Change font settings

In Microsoft Excel, a user can change the properties of text in any cell, including font type, size, color, and make it bold, italic, or underlined. They can also change the color of a cell's background and the border around a cell. The following picture is a graphic illustration of the font and cell format bar in Excel with a description of each option.

Font is a general computer term and refers to the style, size and colour of the text and numbers in your worksheet.

2.3.1 Changing font type

Fig 2.5 font and cell format

To change the text font in a Microsoft Excel spreadsheet, follow the steps below.

1. Select the cell containing the text you want to change.

2. Click the down arrow next to the font field on the format bar. (If you want to change the font to bold, italic, or underlined, click the B, I, or U on the format bar.)

3. After clicking the down arrow for the font, select from each of the installed fonts on your computer. Click the font you want to use, and the text in the selected cell changes.

Fig 2.6 font type

2.3.2 Changing font size

To change the text size in a Microsoft Excel spreadsheet, follow the steps below.

1. Select the cell containing the text you want to change.

2. Click the down arrow next to the size box on the format bar. Usually, the default size is 11 or 12, as shown in the image.

3. After clicking the down arrow for the size, there is a selection of different sizes to choose. Some fonts may not scale properly, so they may have limited size options.
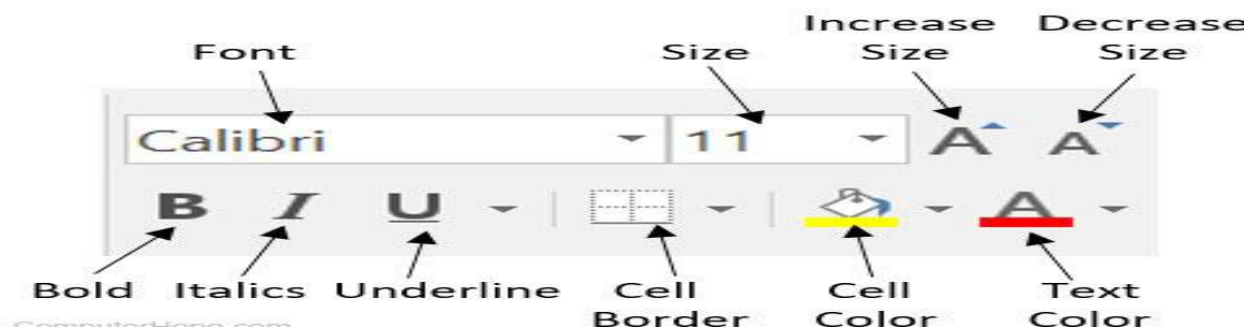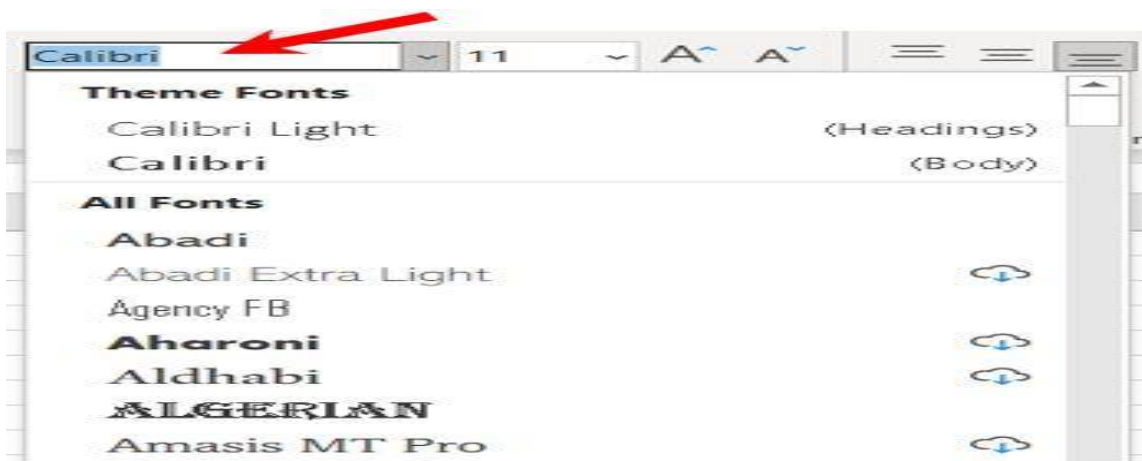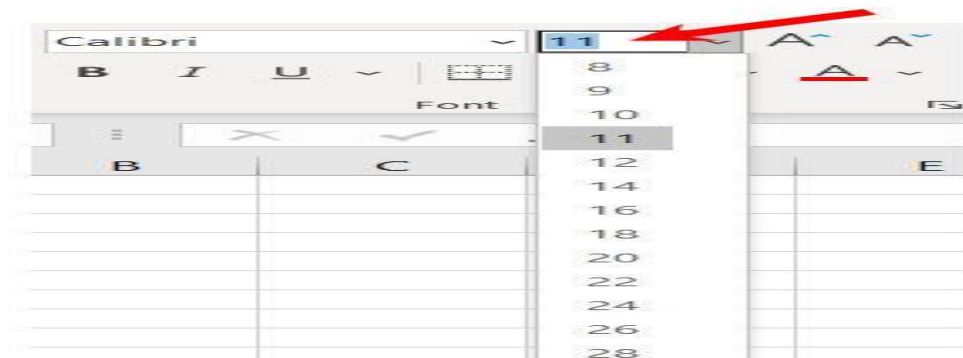
Fig 2.7 font size

2.3.3 Changing font color

To change the text color in a Microsoft Excel spreadsheet, follow the steps below.

1. Select the cell containing the text you want to change.

2. Click the down arrow next to the text color icon. It is usually displayed as the letter "A" with a red underline, as shown in the image.

3. After clicking the down arrow for the text color, select the color you want to make the text. If you want a different color than is available in the drop-down menu, click the More Colors option (indicated by green arrow). Select the desired color in the *Colors* window, and click OK.

Fig 2.8 font color

2.3.4 Changing cell background color

To change the cell background color within a Microsoft Excel spreadsheet, follow the steps below.

1. Click the down arrow next to the cell color icon. It is usually displayed as tipping paint can with a yellow underline, as shown in the image.

2. After clicking the down arrow for the cell color, select the color you want to make the cell background. If you want a different color than is available in the drop-down menu, click the More Colors option (indicated by green arrow). Select the desired color in the *Colors* window, and click OK.
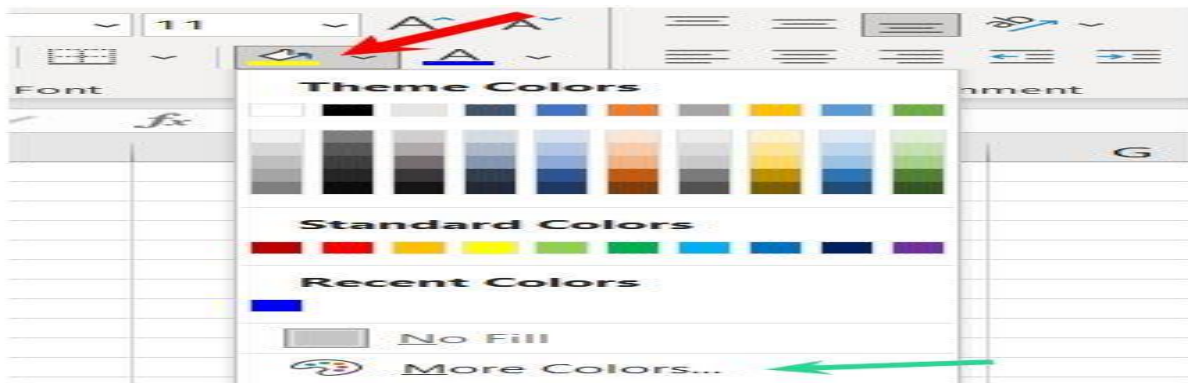
Fig 2.9 Background color
Changing cell border

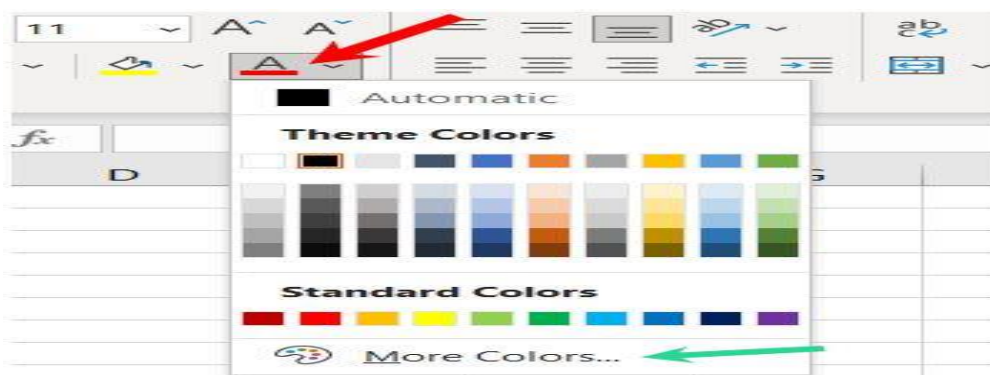By default, a cell does not have a border. To change the cell border in a Microsoft Excel spreadsheet, follow the steps below.

1. Select the cell you want to add a border.
2. Click the down arrow next to the cell border icon. It is usually displayed as a four-pane window, as shown in the image above.
3. After clicking the down arrow for the cell border, select the border type you want to set for the cell.

Fig 2.10 border

4. The cell border color, click the Line Color option at the bottom of the drop-down menu.

5. To change the cell border type, click the Line Style option at the bottom of the drop-down menu

2.4 Change alignment and line spacing Text alignment

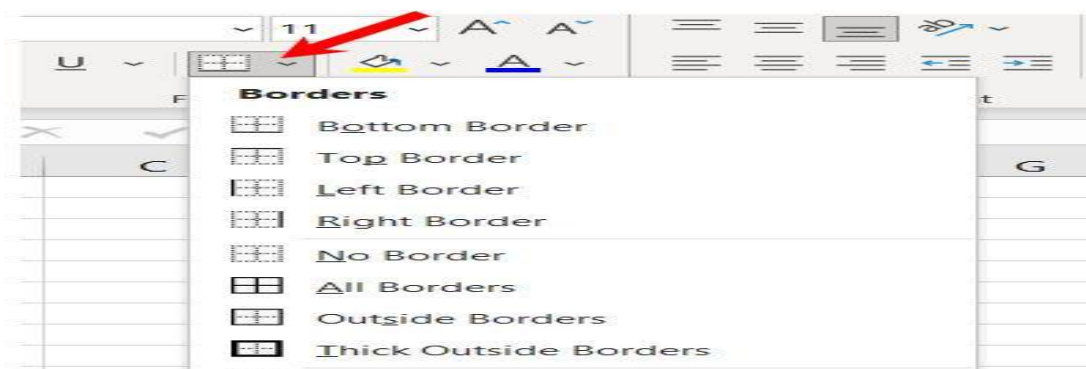By default, any text entered into your worksheet will be aligned to the bottom-left of a cell, while any numbers will be aligned to the bottom-right. Changing the alignment of your cell content allows you to choose how the content is displayed in any cell, which can make your cell content easier to read.
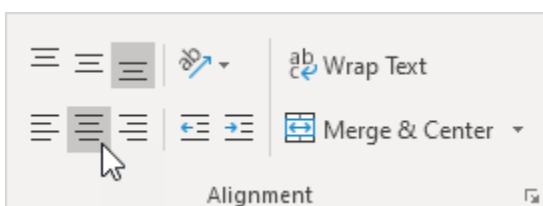
Click the arrows in the slideshow below to learn more about the different text alignment options.

Left Align: Aligns content to the left border of the cell

Center Align: Aligns content an equal distance from the left and right borders of the cell

Right Align: Aligns content to the right border of the cell

	A	B	C	D	E
	First Name	Last Name	Email Address		
1					
2					

Top Align: Aligns content to the top border of the cell

	A	B	C	D	E
	First Name	Last Name	Email Address		
1					
2					

Middle Align: Aligns content an equal distance from the top and bottom borders of the cell

	A	B	C	D	E
1	First Name	Last Name	Email Address		
2					

Bottom Align: Aligns content to the bottom border of the cell

- You can apply both vertical and horizontal alignment settings to any cell.

2.5 Modify margin sizes

A margin is the space between your content and the edge of the page. Sometimes you may need to adjust the margins to make your data fit more comfortably. You can modify page margins from the Print pane.

1. Navigate to the Print pane.
2. Select the desired margin size from the Page Margins drop-down menu. In our example, we'll select Narrow Margins.

Fig 2.11 print pane

3. The new page margins will be displayed in the Preview pane.

You can adjust the margins manually by clicking the Show Margins button in the lower-right corner, then dragging the margin markers in the Preview pane.

2.6 View multiple spreadsheets concurrently

View multiple spreadsheet concurrent

You can also arrange multiple worksheets to view them all at the same time.

View two worksheets in the same workbook side by side

1. On the **View** tab, in the **Window** group, click **New Window**.
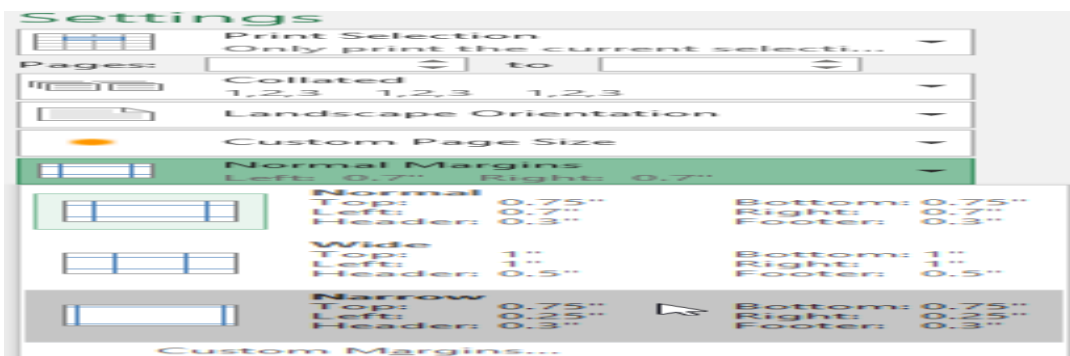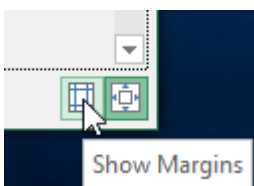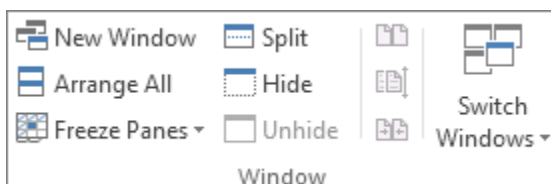

2. On the **View** tab, in the **Window** group, click **View Side by Side** .
3. In each workbook window, click the sheet that you want to compare.
4. To scroll both worksheets at the same time, click **Synchronous Scrolling** in the **Window** group on the **View** tab.

View two worksheets of different workbooks side by side

1. Open both of the workbooks that contain the worksheets that you want to compare.
2. On the **View** tab, in the **Window** group, click **View Side by Side** .

If you have more than two workbooks open, Excel displays the **Compare Side by Side** dialog box. In this dialog box, under Compare Side by Side with, click the workbook that contains the worksheet that you want to compare with your active worksheet, and then click **OK**.

3. In each workbook window, click the sheet that you want to compare.
4. To scroll both worksheets at the same time, click **Synchronous Scrolling** in the **Window** group on the **View** tab.

View multiple worksheets at the same time

1. Open one or more workbooks that contain the worksheets that you want to view at the same time.

2. Do one of the following:
    ▪ If the worksheets that you want to view are in the same workbook, do the following:
        i.   Click a worksheet that you want to view.
        ii. On the **View** tab, in the **Window** group, click **New Window**.
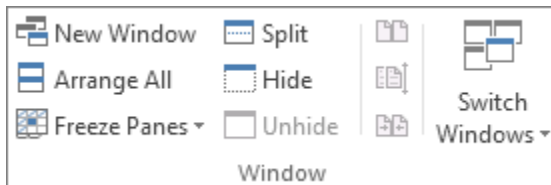
        iii. Repeat steps 1 and 2 for each sheet that you want to view.
    ▪ If the worksheets that you want to view are in different workbooks, continue with step 3.
3. On the **View** tab, in the **Window** group, click **Arrange All**.
4. Under **Arrange**, click the option that you want.
5. If the sheets that you want to view are all located in the active workbook, select the **Windows of active workbook** check box.

Self -check 2

Test-I Multiple choices

Instruction: Answer the following question and put your answer

1.Which bar is used to display options?

 A. Menu   B. Function

C. Formula   D. Status

 2.-------------- is the space between your content and the edge of the page.

A. page layout   B. margin   C. print pane   D. none

Unit Three: Format spreadsheet

This unit to provide you the necessary information regarding the following content coverage and topics:

- Use format features and tools

- Insert headers and footers

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Use format features and tools

- Insert headers and footers

3.1 Use format features and tools

Formatting in Excel means a trick that we can use to modify the data's appearance in a worksheet. We can format the data in various ways, like we can format the font of the cells or the table with the help of the styles and **format tab** present in the **Home tab.**

Excel formatting is an optional step following data preparation, or all of the **data cleansing, structuring, enriching,** and **standardizing** necessary to prepare the data for analysis

format cells is used to modify the formatting of cell numbers without modifying the actual number. With the help of the format cells, we can change the **number, alignment, font style, Border style, Fill options,** and **Protection.**

Good formatting will improve our data in various ways:

- With the help of the formatting, we can present our data correctly; for example, formatting as **dates** or **currency** will provide more value to our data.

- Merging and aligning our data is a vital aspect of making our data more readable.

- Formatting our text by **increasing the Size, bolding, adding italics,** or **changing the fonts** will improve the overall appearance of our worksheet.

- Using styles **(like table styles)** can make our data stand out and helps the reader to focus on crucial portions of the worksheet.

- **Conditional formatting** is a useful tool for highlighting crucial portions of our worksheet graphically or visibly. These are dynamic tools. The Highlighted region changes as our data changes.

Benefits of Data Formatting in Excel

The following are some of the benefits of Excel data formatting:

- The data appears to be more presentable.

- Data formatting saves a lot of time and effort.

- With the help of the chart, we can analyze the data.

- With the help of the formatting, we can highlight specific data such as profit or loss in business. Now,

In order to format data in Excel, we'll do the following things:

- The Font size is **larger.**

- We make the text of the column head **bold**

- **Center aligning** the data

- We will apply the outline border with the help of the shortcut that is (Alt+H+B+T),

- After selecting the full table **(using Ctrl+A),** use the shortcut key **(Alt+H+O+I)** to adjust the column width.

- To alter the background, use the 'Fill Color' command in the 'Font' group on 'Home'

3.2 Insert headers and footers

The purpose of Header and Footer in Excel

The purpose is similar to that of hard copy documents or books. The headers and footers in Excel help meet the standard representation format of the documents and/or worksheets. In addition, they add a sense of organization to the soft documents and/or worksheets.
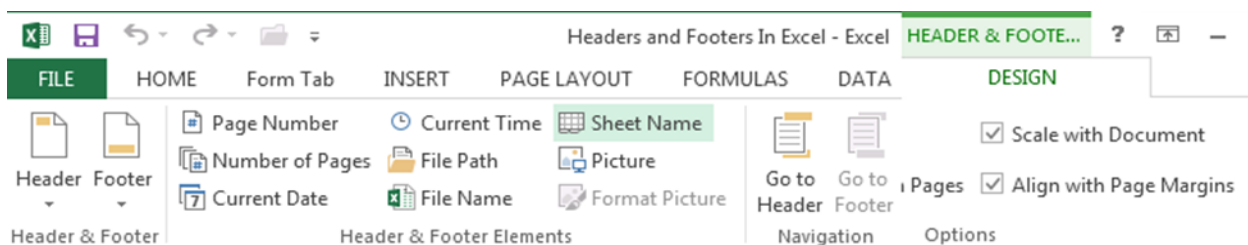
Fig 3.1 header and footer tools

3.1.1 Create a Header in Excel

Step1. First, click the worksheet where we want to add or change the header. Then, go to the "Insert tab" -"Text" group – "Header & Footer."
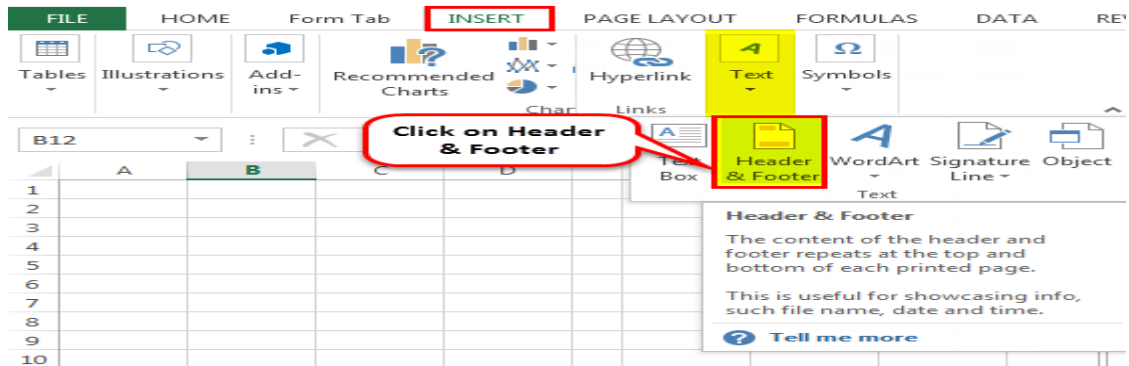
Fig 3.2 header and footer

Step2.Clicking on it would open a new window, as shown below.
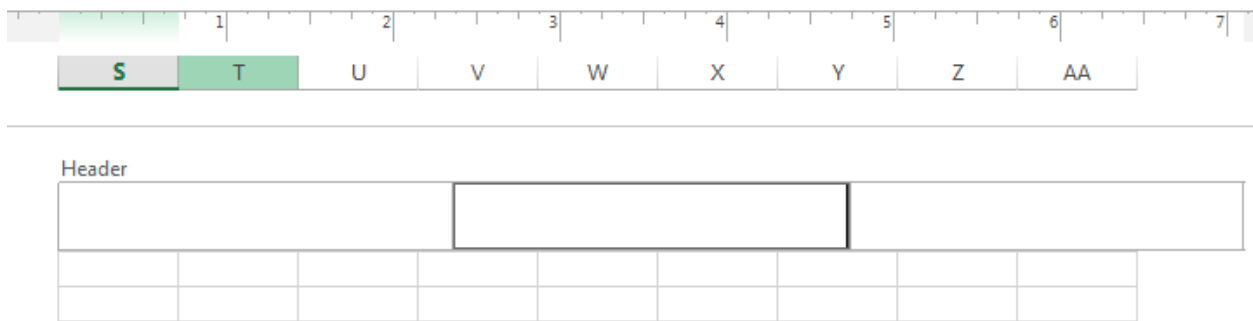
Fig 3.3 header and footer text

Step3.As shown in the screenshot below, "Header & Footer Tools" has a "Design" tab containing various text options to put as the header. The default is an empty text box wherein we can enter a free text, e.g., "This is the header text." The other options are "Page Number," "Number of Pages," "Current Date," "Current Time," "File Path," "File Name," "Sheet Name," "Picture," etc.
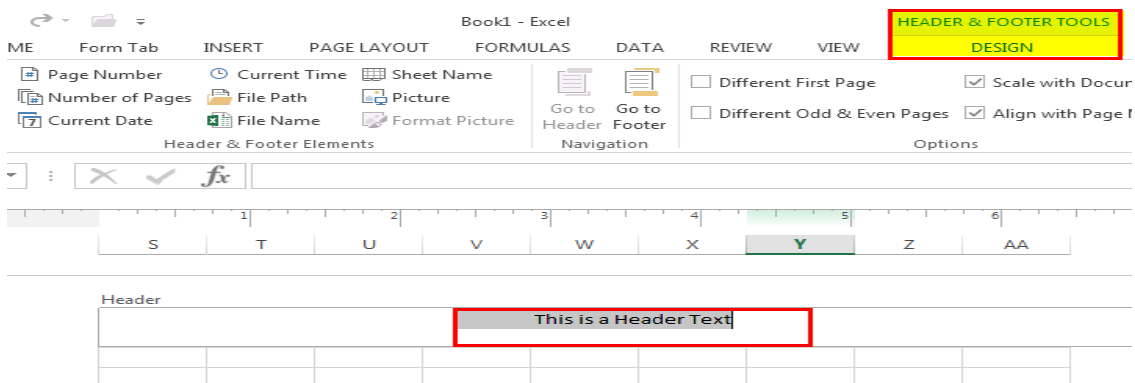
Fig 3.4 header name

3.1.2 Create Footer in Excel

Step1. We must first click the worksheet where we want to add or change the header. Then, go to the "Insert" tab -> "Text" group -> "Header & Footer."
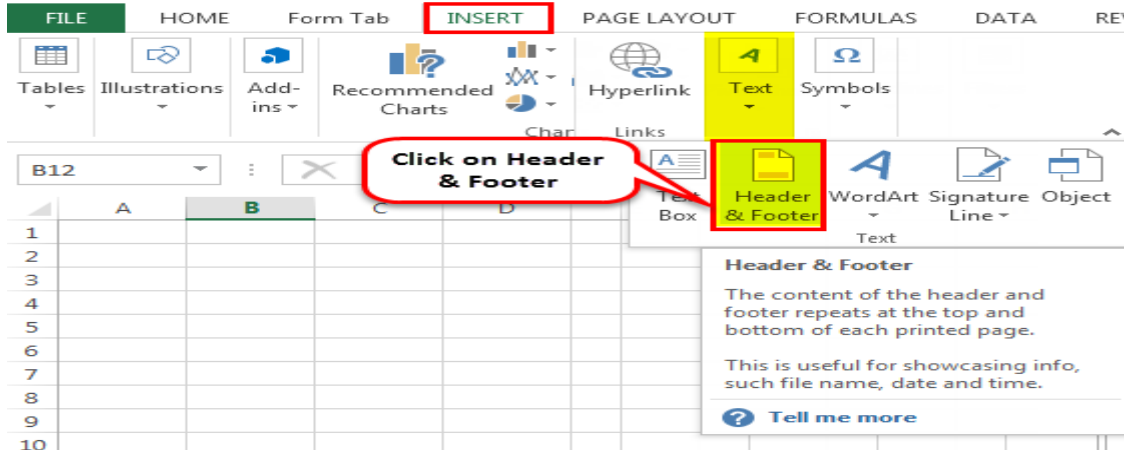
Fig 3.5 header and footer

Step2. Clicking on it would open a new window, as shown. As shown in the screenshot below, "Header & Footer Tools" has a "Design" tab containing various text options to put as the header. The default is an empty text box wherein you can enter a free text, e.g., "This is the Footer text." The other options are "Page Number," "Number of Pages," "Current Date," "Current Time," "File Path," "File Name," "Sheet Name," "Picture," etc.
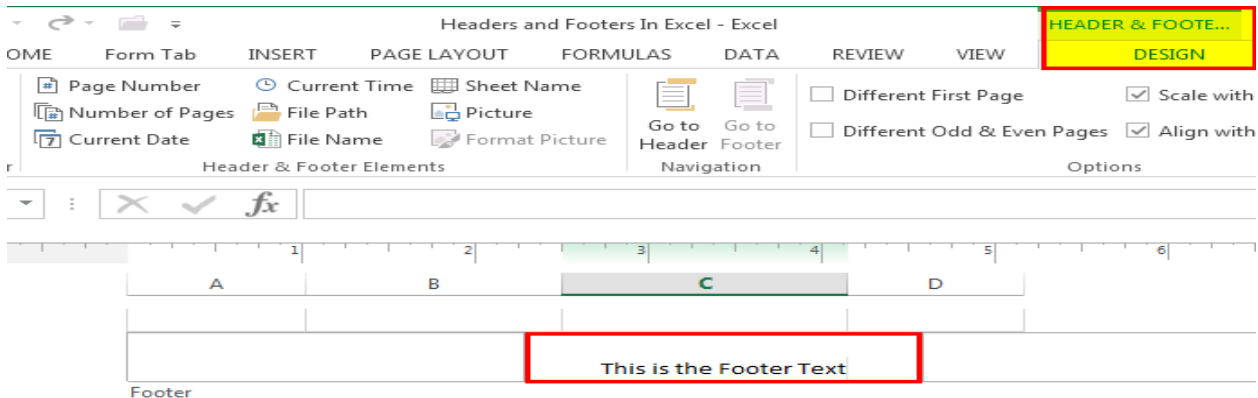
Fig 3.6 footer name

Remove Header and Footer in

Step1. We must first launch the "Page Setup" dialog box from the "Page Setup" box under the "Page Layout" menu.
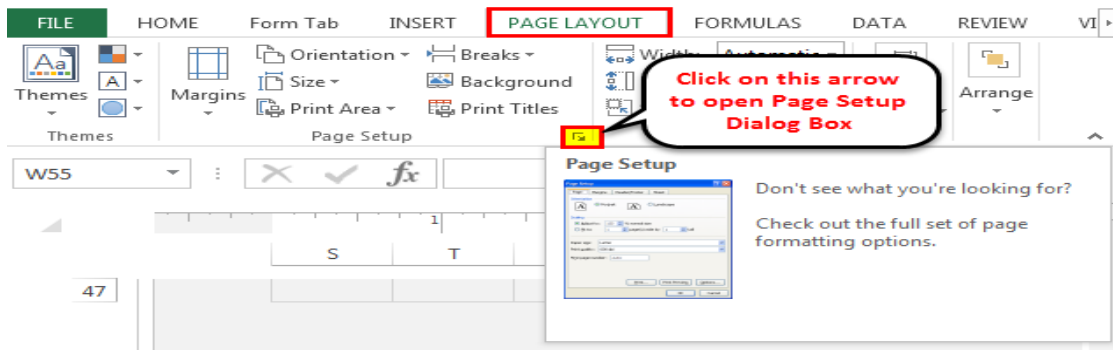
Fig3.7 page setup

- Then, go to the "Header/Footer" section.
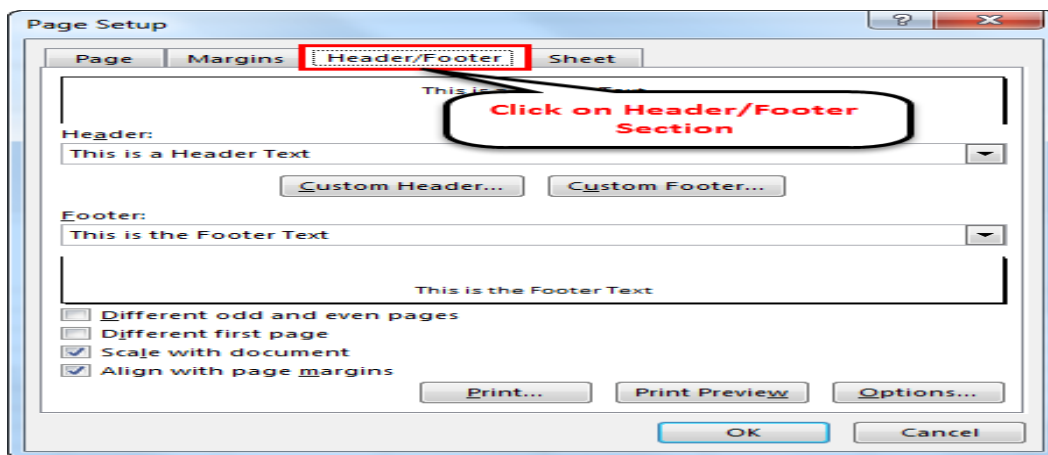
Fig 3.8 header and footer section

- Select 'none' for "Header" and/or "Footer" to remove the respective feature.

Self-check-3

Test I: short Answer writing

Instruction: write short answer for the given question. You are provided 2minutes for each question and each point has 3 Points**.**

1.Write the purpose of header and footer in excel?

2.what is formatting in excel?

3.write Benefits of data formatting?

4.write good way of improve formatting?

Operation title 3: Format spreadsheet

Purpose: -

- To familiarize with Microsoft excel 2016 environment.
- To know how to work format cell, enter data and insert header and footer in spreadsheet.

Instruction: The Given necessary equipment, tools and materials you are follow the necessary steps and operate each task. You have given 1:30 hour for the task and you are expected to write the answer task.

Task1:Use the given figure below (3.9),and based on the use of following information format cell(number=General, text alignment=center, font type=caliberia,font styl=Bold,font size=15 and font color=15).For this operation you have given 1 hour and you are expected to provide the answer on the given task.

Tools and requirement: - ICT room, computer, Printer, A4 paper, Mouse and keyboard, Monitor, Basic Software, Documents and pen/pencil.

Precautions: Microsoft office is install.

Procedures:-in doing the task

Step-1: Click on start → All Application→Click Microsoft office excel 2016 → click blank document

Step-2: enter data in to cell

Step-3: edit column and row

Step-4: To change the format

Step-5: insert header and footer

Step-6: Remove header and footer

Step-7: custom header and footer

Step-8: To use a custom page size.

Step-11: save as you want location and name

Quality Criteria: based on the given information the document is done

	A	B	C	D	E	F	G	H
1	City	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
2	Delhi	45	35	30	45	44	23	36
3	Pune	33	38	27	32	46	28	45
4	Banglore	44	47	46	36	37	38	32
5	Mumbai	39	46	44	28	29	42	28
6	Nainital	27	26	36	35	39	21	44

Fig 3.9 excel document

LAP Test 3	Practical Demonstration

Instruction I: Given necessary equipment, tools and materials you are required to perform the following tasks within 1hours.

Instruction: The given necessary equipment, tools and materials you are follow the necessary steps and operate each task. You have given 1hour for the task and you are expected to write the answer

Task1: To open MS office excel 2016 then Create a new blank document and save it as name format_spreadsheet on your desktop. Use of following information column header name (Id,Tname,sex,age,phone number,address & date of birth),header name="WDDA" and footer name="Next"format cell(number=General, text alignment=cent, font type=caliberia,font styl=Bold,font size=20 and font color=green) and for column header name use appropriate change format then based on the given information to prepare the document,Remove header and footer custom header and footer. For this operation you have given 1:30 hour and you are expected to provide the answer on the given.

Unit Four: Incorporate object and chart in spreadsheet

This unit to provide you the necessary information regarding the following content coverage and topics:

- Import an object into spreadsheet

- Create a chart using selected data in the spreadsheet

- Display selected data in a different chart

- This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Import an object into spreadsheet

- Create a chart using selected data in the spreadsheet

- Display selected data in a different chart

4.1 Import an object into spreadsheet

In Microsoft Excel, the "Object Insert" option allows a user to insert an external object into a worksheet. Embedding generally means inserting an object from another software (Word, PDF, etc.) into an Excel worksheet. This option is useful for direct access to files related to your worksheet data from within your worksheet space. In addition, the inserted object works as a ready information source or reference for a dataset in an Excel worksheet.

Insert (Embed) an Object in Excel

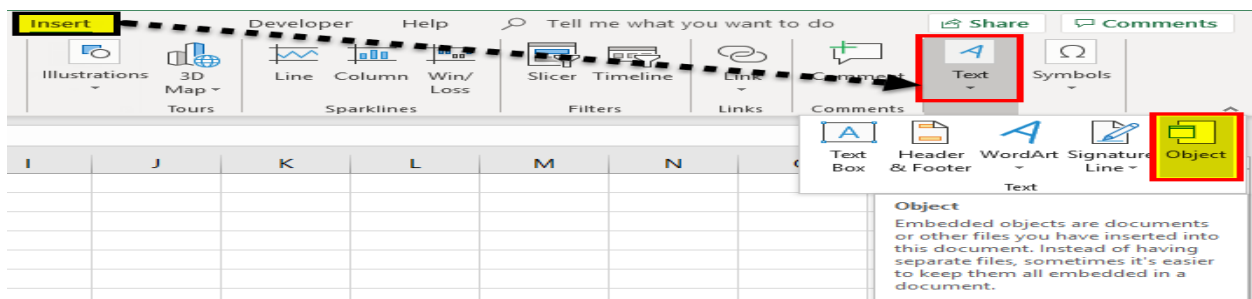1. We must first select "Text" from the "Insert" tab and then click "Object."

Fig 4.1 object tab

2. Then, select "Create New" to embed a new blank file. Remember, only file types are shown in "Object type" that can be embedded in the Excel worksheet.
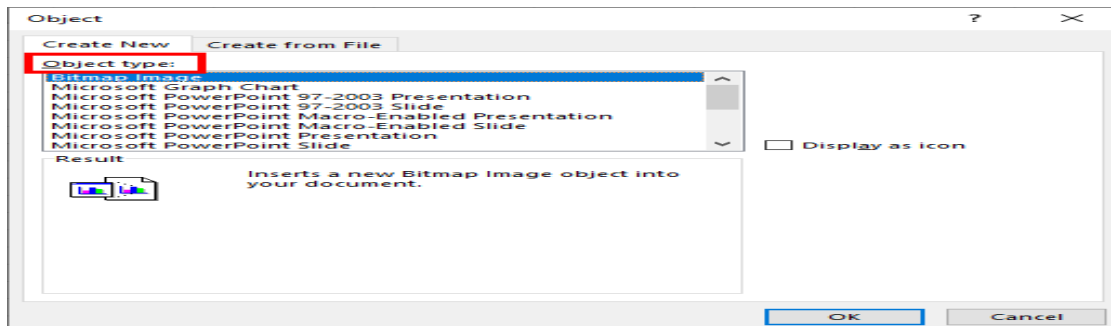
Fig 4.2 object type

3. Now, choose a file type to embed. For example, we have selected a "Microsoft Word Document," now click "OK."

Fig 4.3 display as icon

Step 1: Select "Text" from the "Insert" tab and click "Object."

Fig 4.4 text

Step 2: Select **"Create from File"** and click **"Browse"** to embed an existing file into the worksheet. Remember, only file types are shown in "Object Type" that can be embedded in the Excel worksheet.
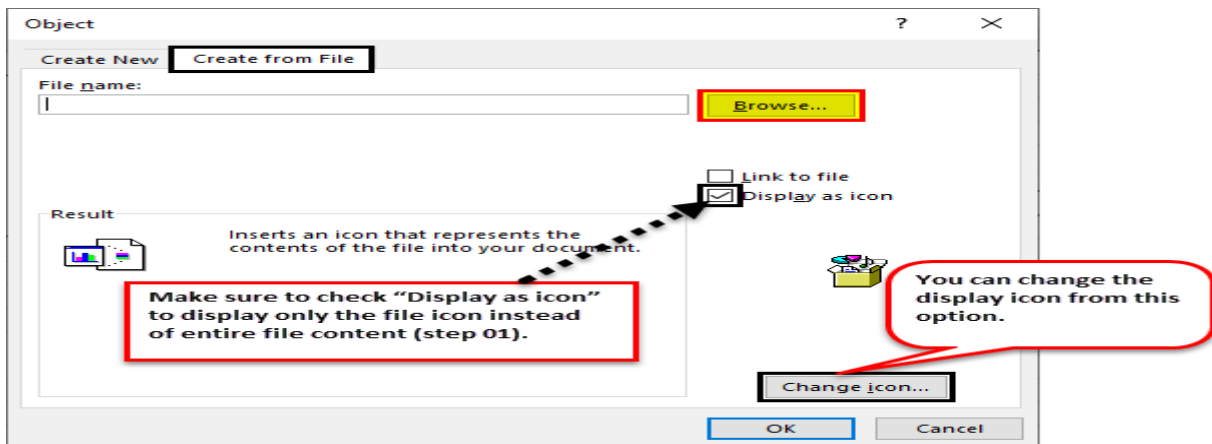
Fig 4.5 browse

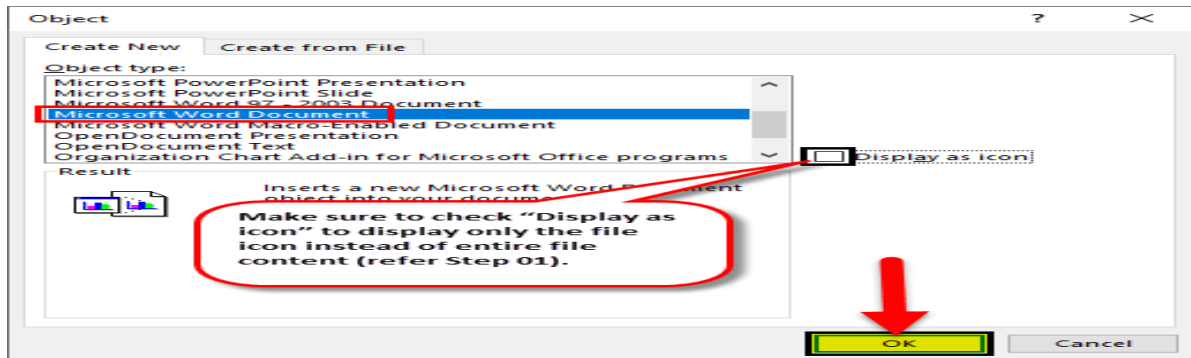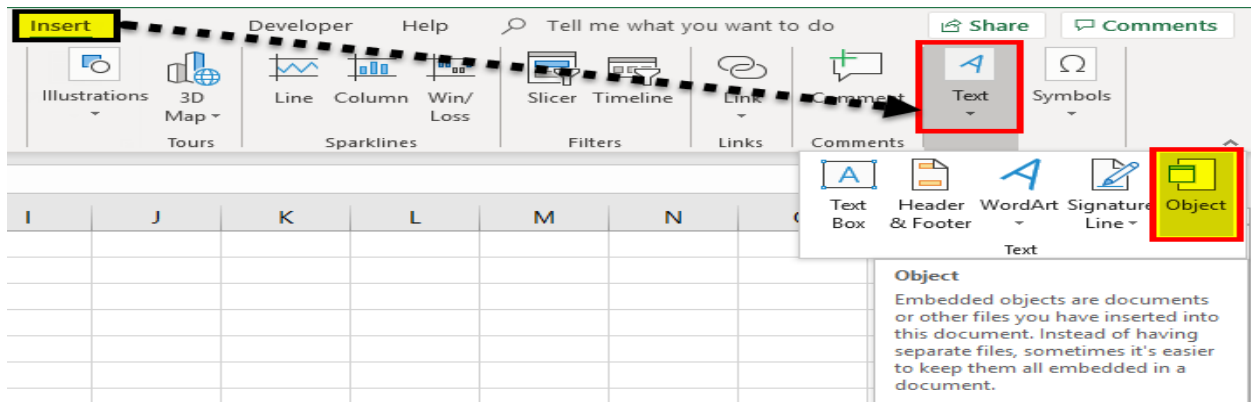**Step 3:** Now click "OK." The file icon will be displayed on the worksheet.
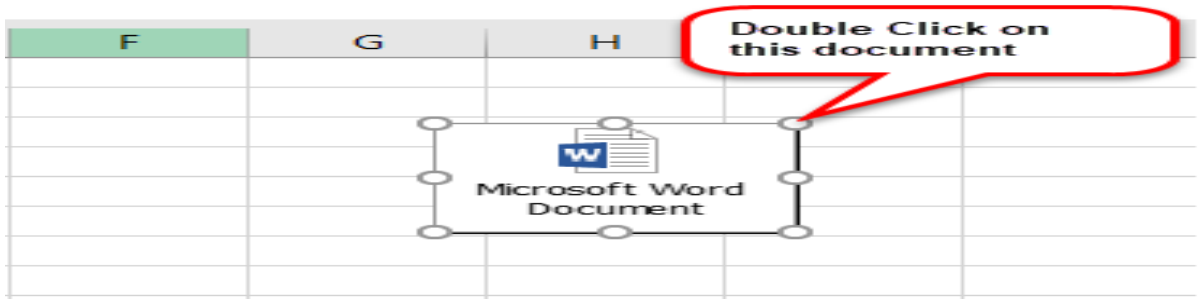
Fig 4.6 object icon

NOTE: If we do not check the "Display as icon" option, it will show the embedded file's content instead of the icon. We can double-click on the embedded file icon or content to edit the content of the embedded file.
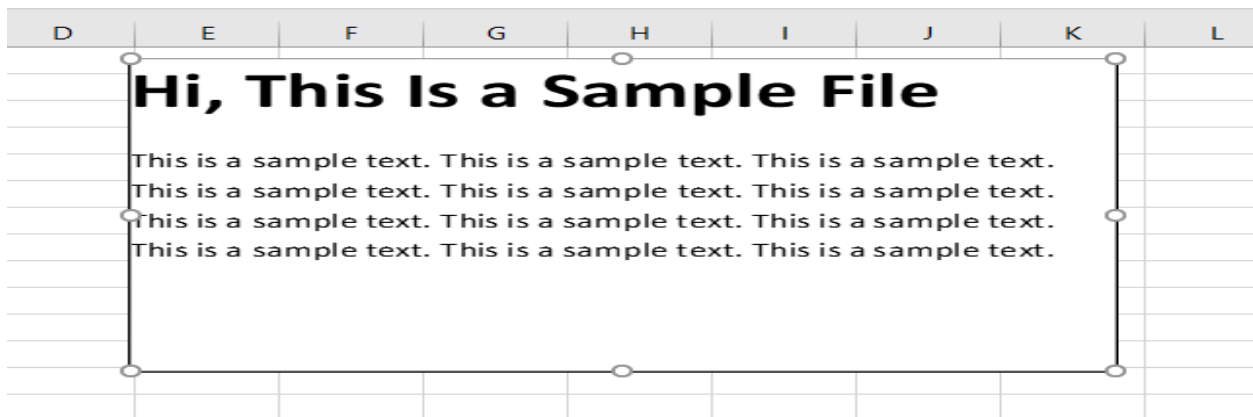
Fig 4.7 display icon

4.2 Create a chart using selected data in the spreadsheet

Excel has several different **types of charts**, allowing you to choose the one that best fits your data. In order to use charts effectively, you'll need to understand how different charts are used.
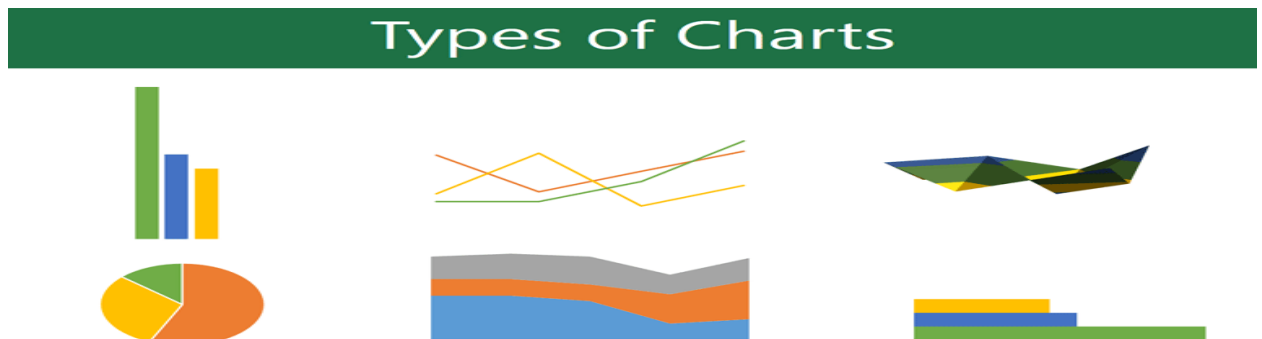
Fig 4.8type of chart

Excel has a variety of chart types, each with its own advantages. Click the arrows to see some of the different types of charts available in Excel.
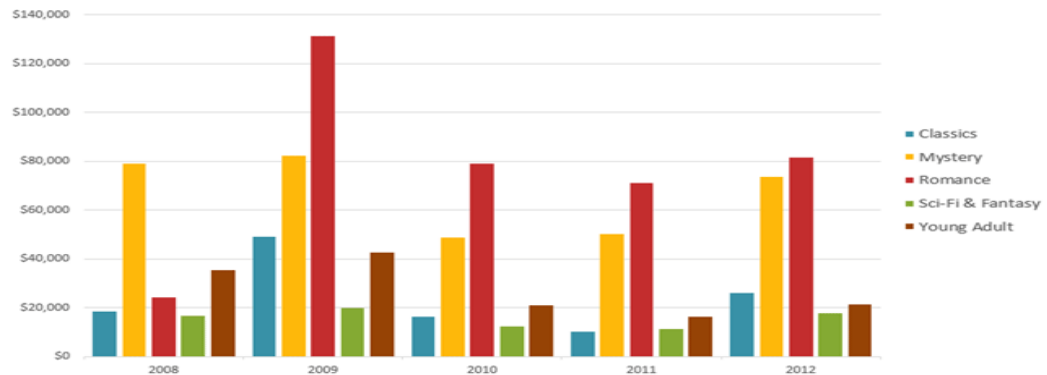
Fig 4.9 column chart

Column charts use vertical bars to represent data. They can work with many different types of data, but they're most frequently used for comparing information.
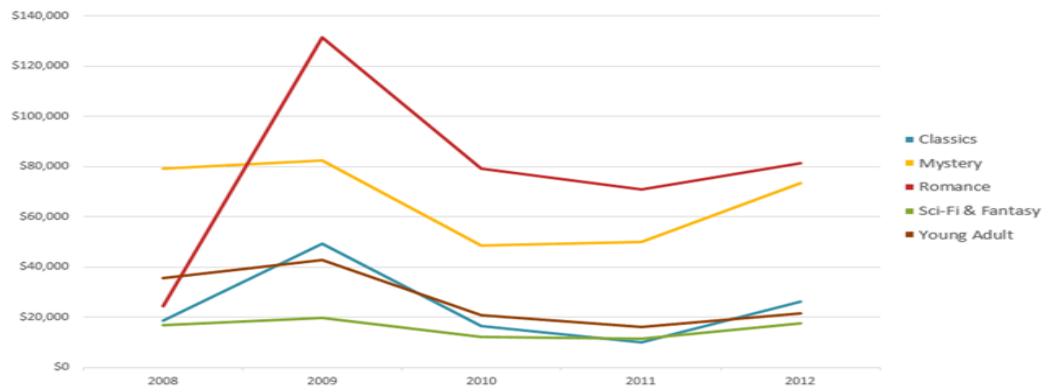
Fig 4.10 line chart

Line charts are ideal for showing trends. The data points are connected with lines, making it easy to see whether values are increasing or decreasing over time.
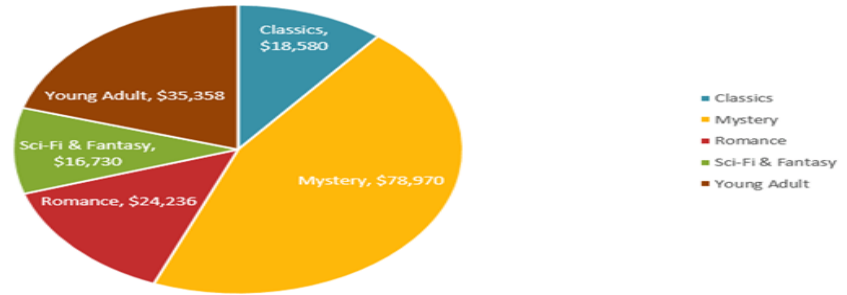
Fig 4.11 pie chart

Pie charts make it easy to compare proportions. Each value is shown as a slice of the pie, so it's easy to see which values make up the percentage of a whole.
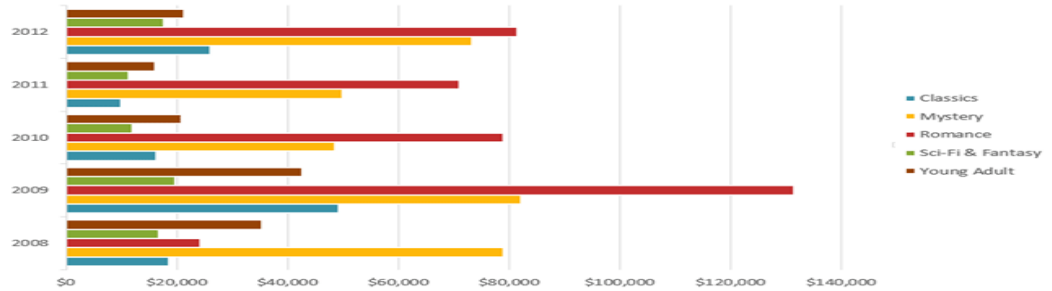
Fig 4.4 bar chart

Bar charts work just like column charts, but they use horizontal rather than vertical bars.
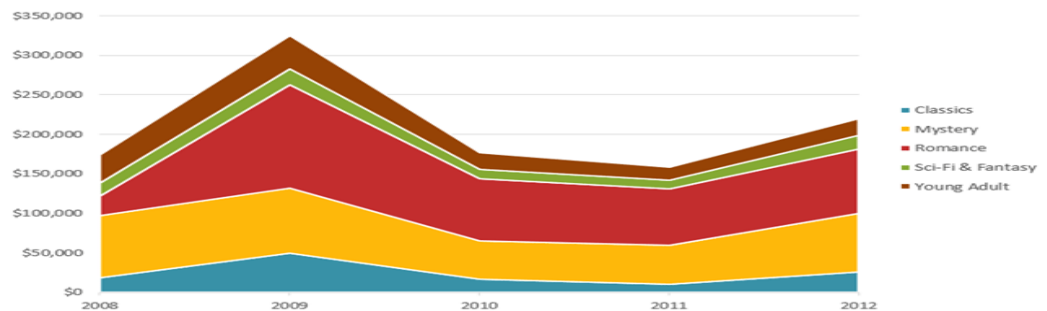
Fig 4.12 area chart

Area charts are similar to line charts, except the areas under the lines are filled in.

Surface
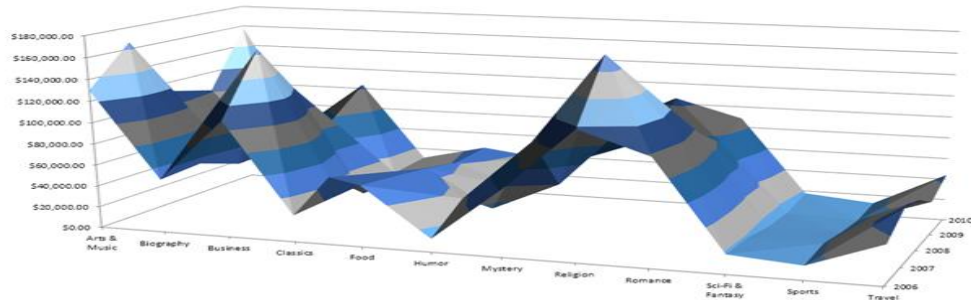
Fig 4.13 surface are

Surface charts allow you to display data across a 3D landscape. They work best with large data sets, allowing you to see a variety of information at the same time.

In addition to chart types, you'll need to understand how to **read a chart**. Charts contain several different elements, or parts, that can help you interpret the data.
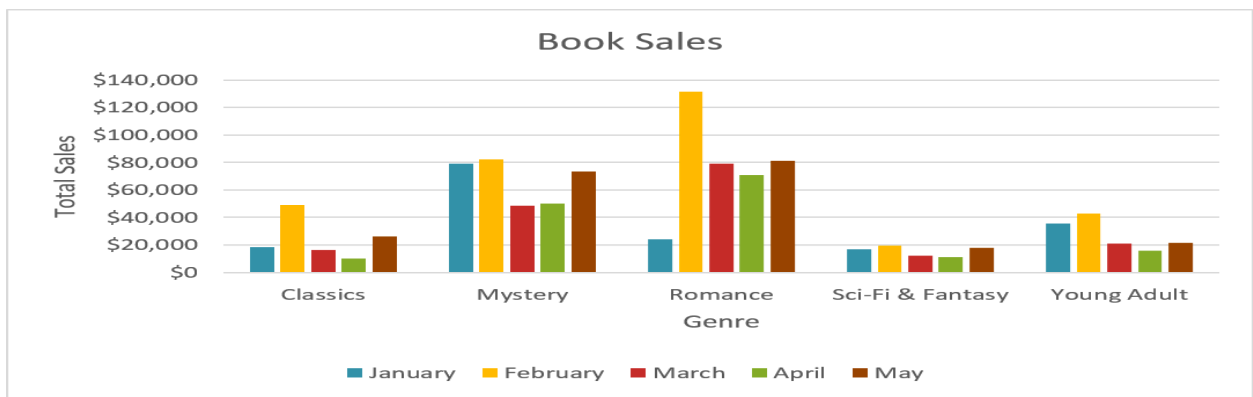
Fig 4.15 insert data in to worksheet

To insert a chart:

1. Select the **cells** you want to chart, including the **column titles** and **row labels**. These cells will be the source data for the chart. In our example, we'll select cells A1:F6.

Fig 4.16 source data

2. From the **Insert** tab, click the desired **Chart** command. In our example, we'll select **Column**.
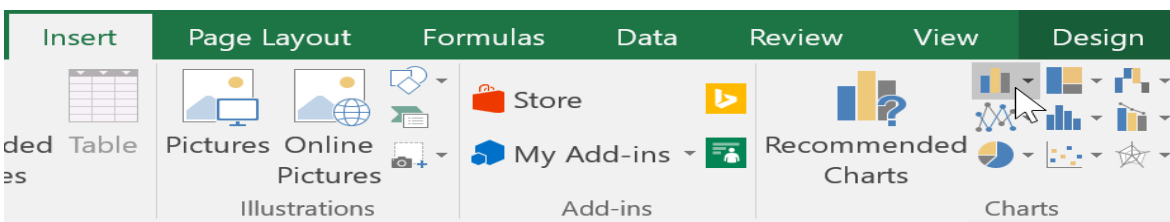
Fig4. 17 chart command

3. Choose the desired **chart type** from the drop-down menu.
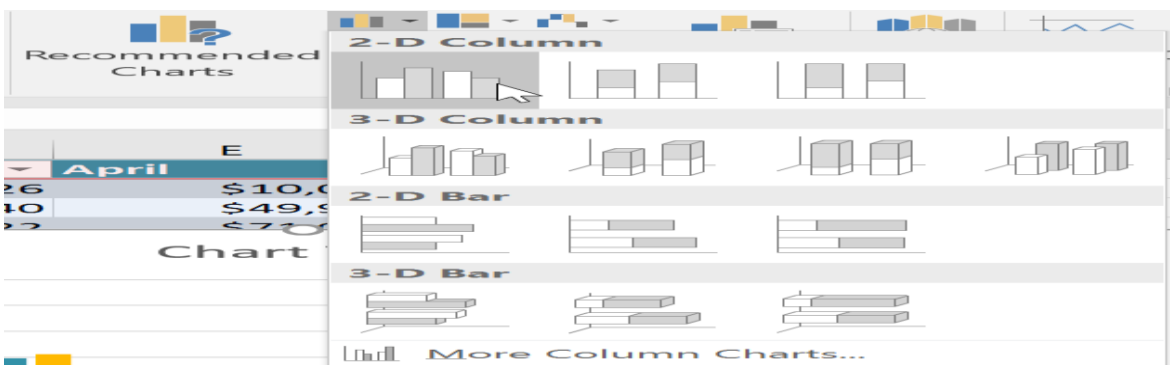
Fig 4.18 chart type

4. The Selected chart will be inserted into the worksheet.
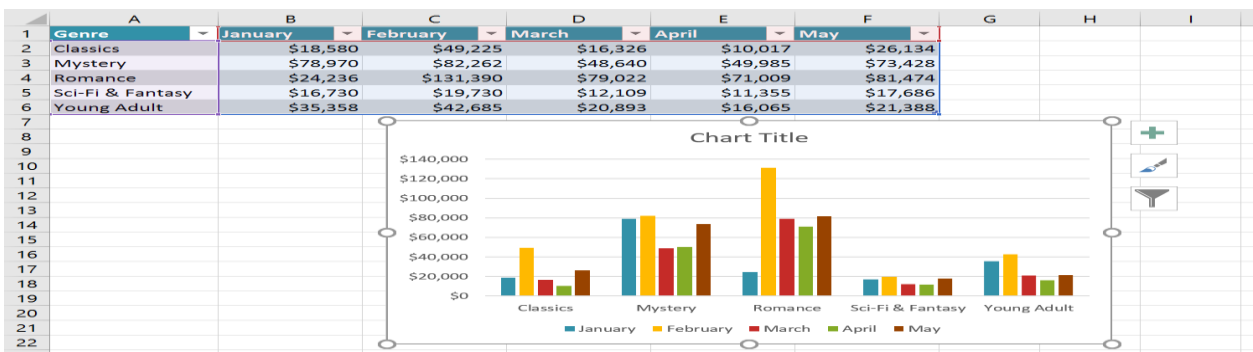
Fig 4.19 select chart on worksheet

If you're not sure which type of chart to use, the **Recommended Charts** command will suggest several different charts based on the source data.
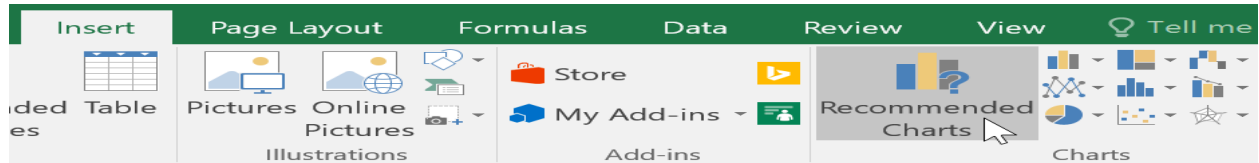
Fig 4.20 Recommended chart

Chart and layout style

After inserting a chart, there are several things you may want to change about the way your data is displayed. It's easy to edit a chart's **layout** and **style** from the **Design** tab.

- Excel allows you to add **chart elements**—such as **chart titles**, **legends**, and **data labels**—to make your chart easier to read. To add a chart element, click the **Add Chart Element** command on the **Design** tab, then choose the **desired element** from the drop-down menu.

Fig 4.21 chart chart layout

To edit a chart element, like a chart title, simply double-click the placeholder and begin typing.
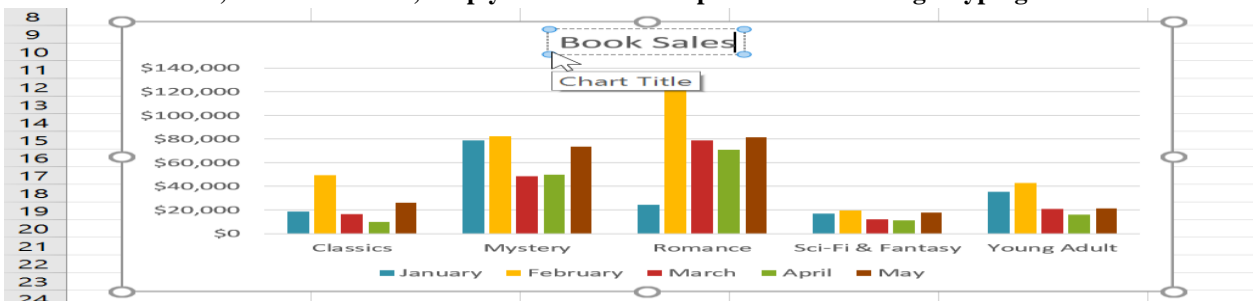
Fig 4.22 chart element

If you don't want to add chart elements individually, you can use one of Excel's predefined layouts. Simply click the **Quick Layout** command, then choose the **desired layout** from the drop-down menu.

Fig 4.23 Quick layout

Excel also includes several **chart styles**, which allow you to quickly modify the look and feel of your chart. To change the chart style, select the **desired style** from the **Chart styles** group. You can also click the drop-down arrow on the right to see more styles.
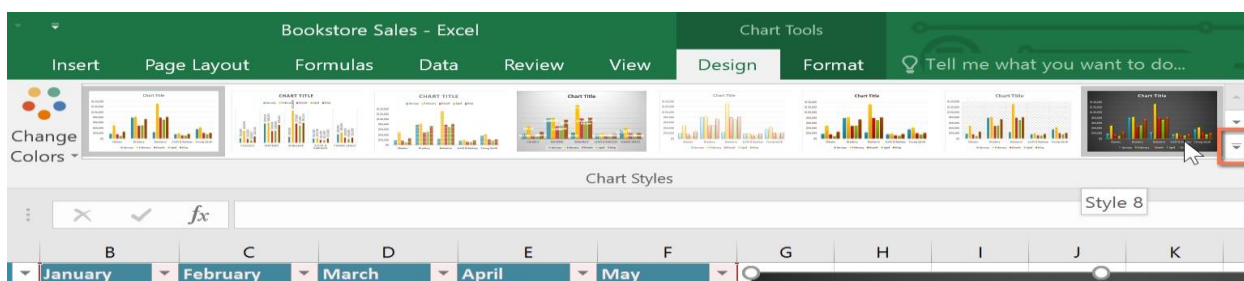
Fig 4.24 Chart style

You can also use the chart formatting shortcut buttons to quickly **add chart elements**, change the **chart style**, and **filter** the chart data.
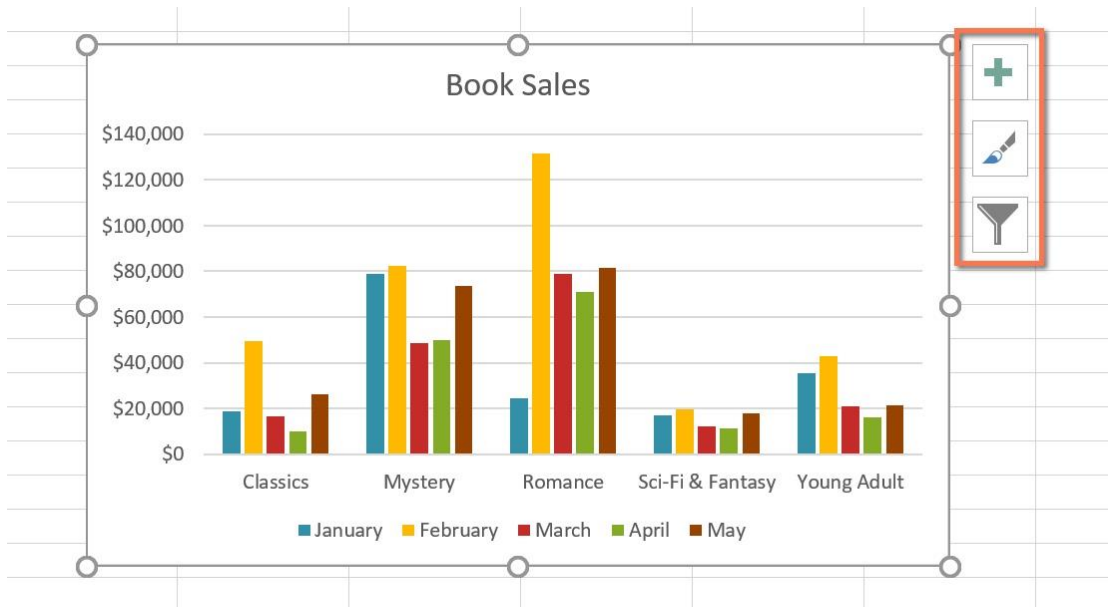
Fig 4.25 add chart element

There are many other ways to customize and organize your charts. For example, Excel allows you to **rearrange** a chart's data, change the **chart type**, and even **move** the chart to a different location in a workbook.

To switch row and column data:

Sometimes you may want to change the way charts **group** your data. For example, in the chart below Book Sales data is grouped **by genre**, with columns for **each month**. However, we could switch the rows and columns so the chart will group the data **by month**, with columns for **each genre**. In both cases, the chart contains the same data—it's just organized differently.
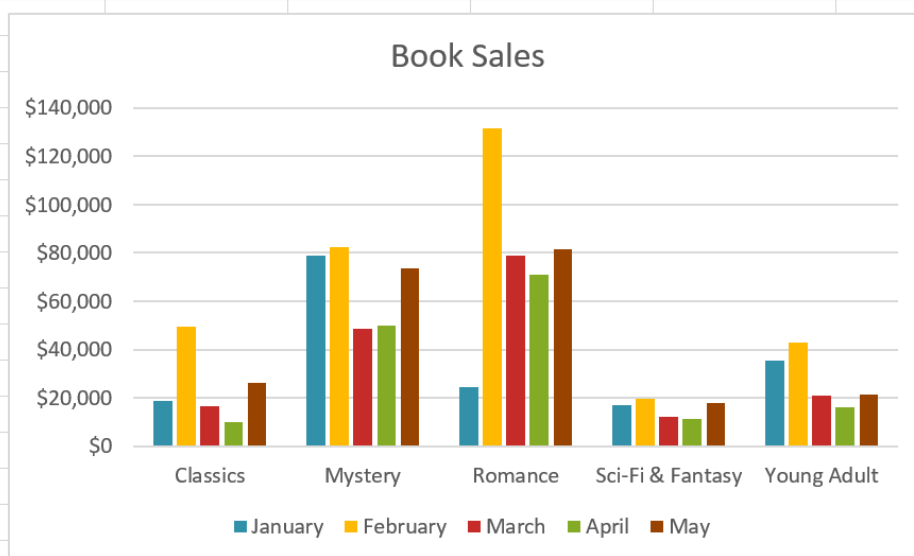
1. Select the **chart** you want to modify.
2. From the **Design** tab, select the **Switch Row/Column** command.
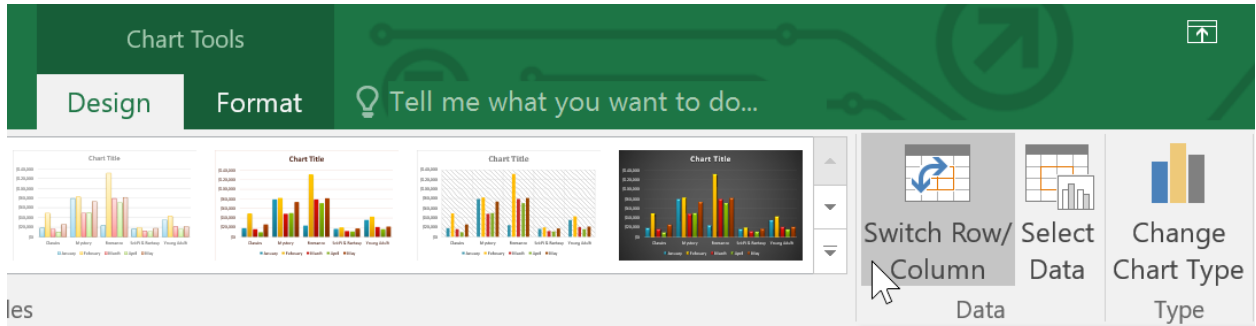
Fig 4.26 switch row /column

3. The rows and columns will be **switched**. In our example, the data is now grouped by month, with columns for each genre.
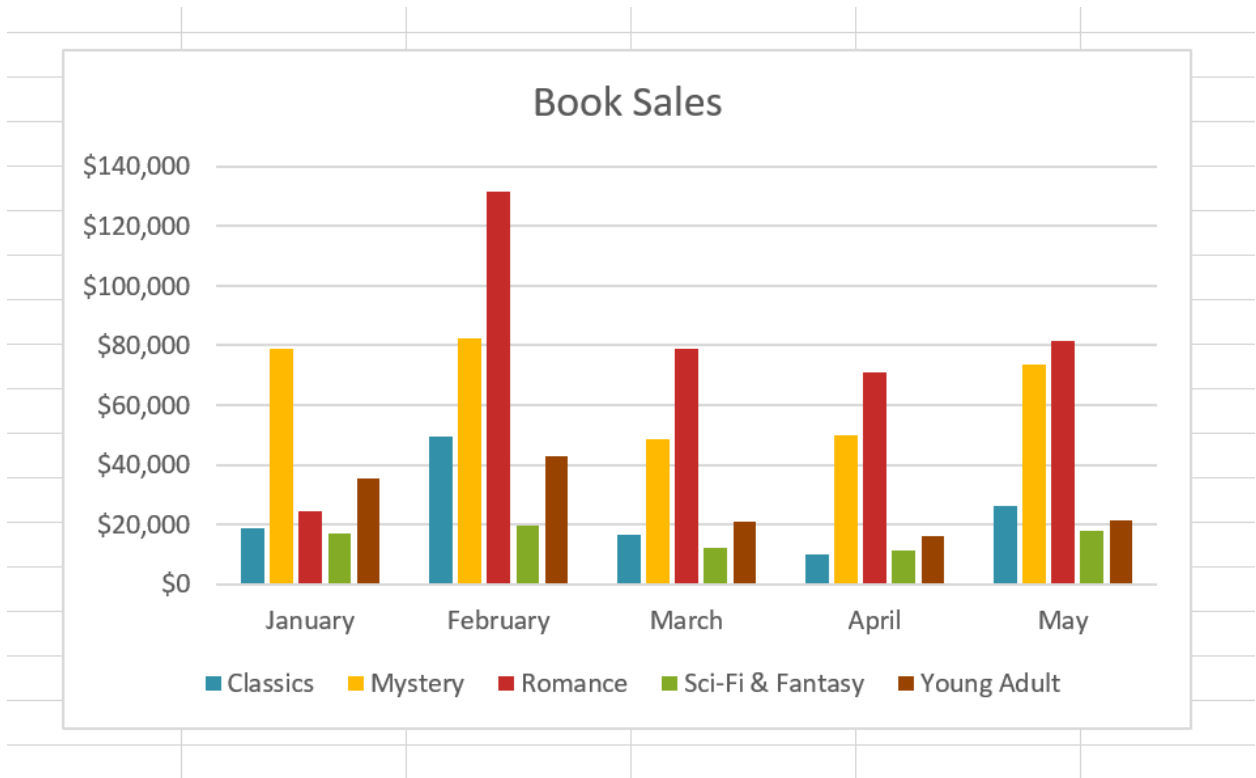
To change the chart type:

If you find that your data isn't well suited to a certain chart, it's easy to switch to a new chart type. In our example, we'll change our chart from a column chart to a line chart.

1. From the **Design** tab, click the **Change Chart Type** command.
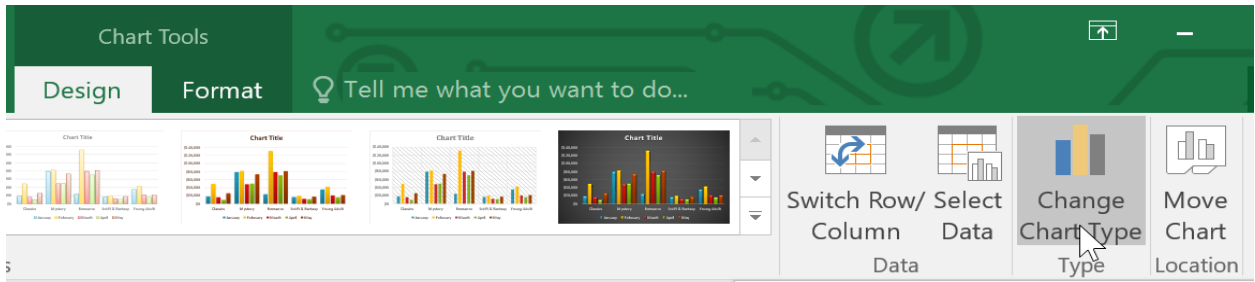
Fig 4.26 chart type command

2. The **Change Chart Type** dialog box will appear. Select a new chart **type** and **layout**, then click **OK**. In our example, we'll choose a **Line** chart.
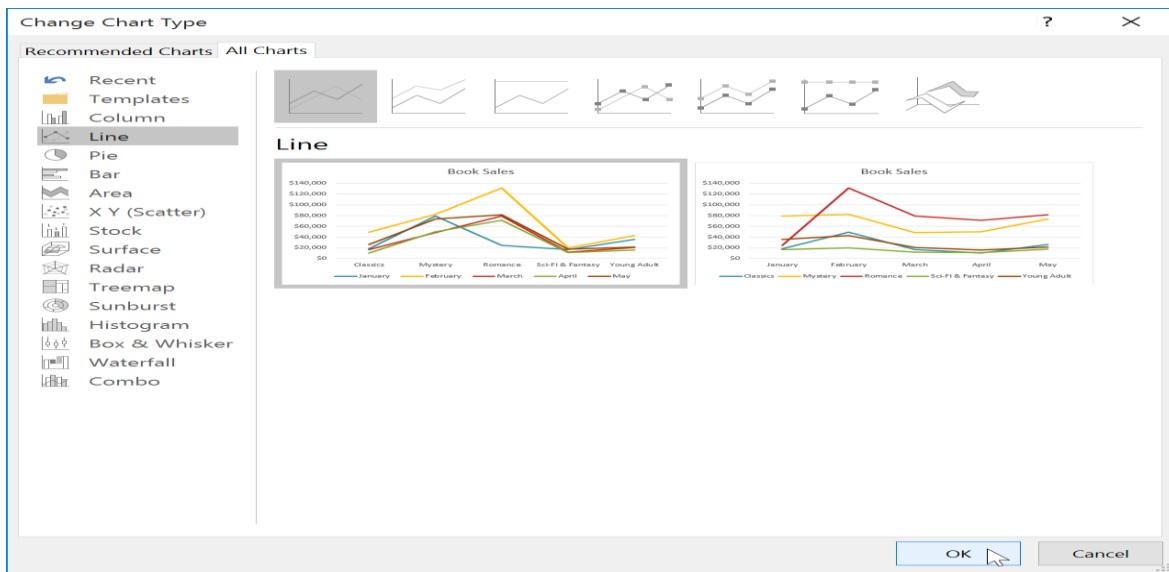
Fig 4.27 chart type dialog box

3. The selected chart type will appear. In our example, the line chart makes it easier to see trends in sales data over time.
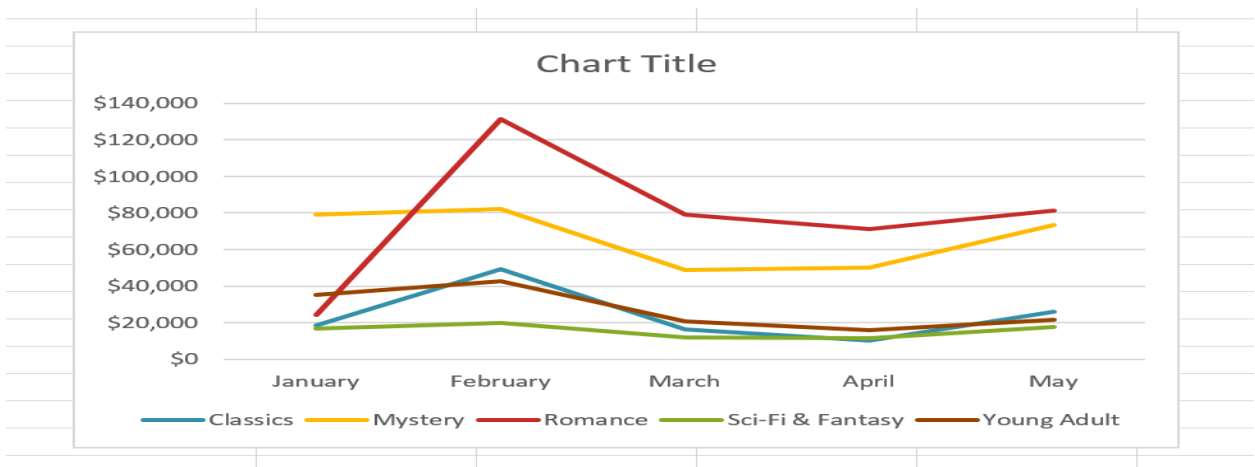
To move a chart:

Whenever you insert a new chart, it will appear as an object on the same worksheet that contains its source data. Alternatively, you can **move** the chart to a **new worksheet** to help keep your data organized.

1. Select the **chart** you want to move.

2. Click the **Design** tab, then select the **Move Chart** command.
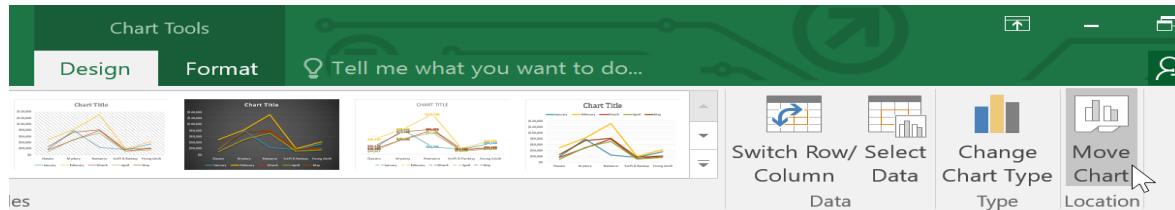
Fig 4.28 move chart command

3. The **Move Chart** dialog box will appear. Select the **desired location** for the chart. In our example, we'll choose to move it to a **New sheet**, which will create a new worksheet.

4. Click **OK**.

Fig 4.29 move chart

5. The chart will appear in the selected location. In our example, the chart now appears on a new worksheet.
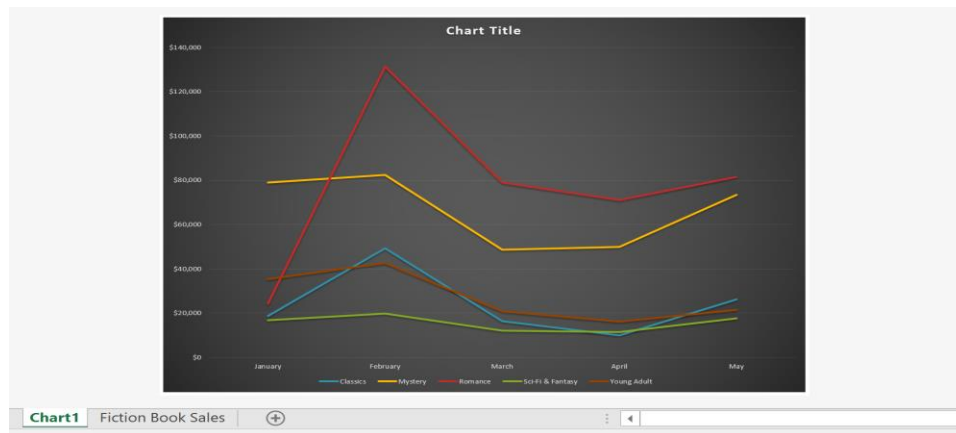
Fig 4.30 new worksheet chart

Self-check-4

Test-I Multiple choices

Instruction: Answer the following questions and put your answer.

1. What do you use to create a chart?

   A. Pie Wizard   C. Data Wizard

   B. Excel Wizard   D. Chart Wizard

2. How will you graphically represent expenditure in different departments ?

   A. Column Chart   C. Pie Chart

   B. Line Chart   D. Dot Char

3. What type of chart is good for single series of data ?

   A. Column Chart   C. Pie Chart

   B. Line Chart   D. Cone Chart

4. What type of chart will you use to compare performance of sales of two products ?

   A. Column Chart

   B. Line Chart

   C. Pie Chart

   D. Both A and B

Operation title 4.1 Import an object into spreadsheet

Purpose: -

- To know how to work object import into the worksheet

Instruction: The Given necessary equipment, tools and materials you are follow the necessary steps and operate each task. You have given 30 mint for the task and you are expected to write the answer task.

Task1: open a new workbook and save the file with the name "object"to import object into the excel. For this operation you have given 1 hour and you are expected to provide the answer on the given task.

Tools and requirement: - ICT room, computer, Printer, A4 paper, Mouse and keyboard, Monitor, Basic Software, Documents and pen/pencil.

Precautions: import object into excel.

Procedures:-in doing the task

Step-1: Click on start → All Application→Click Microsoft office excel 2016 → click blank document

Step-2: click insert

Step-3: click text

Step-4: select object create new document or from existing file.

Step-4: display as icon ----→ok

Operation title 4 import an object into spreadsheet

Purpose: -

- To familiarize type of chart.

- To know how to work create a chart select data into spreadsheet.

Instruction: The Given necessary equipment, tools and materials you are follow the necessary steps and operate each task. You have given 1 hour for the task and you are expected to write the answer task.

Task1:Use the given figure below (3.17) ,open a new workbook and save the file with the name "chart" to prepare the document then create a chart select data into spreadsheet by all type of chart. For this operation you have given 1 hour and you are expected to provide the answer on the given task.

Tools and requirement: - ICT room, computer, Printer, A4 paper, Mouse and keyboard, Monitor, Basic Software, Documents and pen/pencil.

Precautions: Microsoft office excel is install.

Procedures:-in doing the task

Step-1: Click on start → All Application→Click Microsoft office excel 2016 → click blank document

Step-2: select the cell you want to chart

Step-3: from insert click chart command

Step-4: choose chart type

Step-5: select chart will be inserted into worksheet

	A	B	C	D	E	F	G	H
1	City	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
2	Delhi	45	35	30	45	44	23	36
3	Pune	33	38	27	32	46	28	45
4	Banglore	44	47	46	36	37	38	32
5	Mumbai	39	46	44	28	29	42	28
6	Nainital	27	26	36	35	39	21	44

Fig 4.31 excel document

LAP Test 3	Practical Demonstration

Instruction I: Given necessary equipment, tools and materials you are required to perform the following tasks within 1hours.

Instruction: The given necessary equipment, tools and materials you are follow the necessary steps and operate each task. You have given 1hour for the task and you are expected to write the answer

Task1: To open MS office excel 2016 then Create a new blank document and save it as name object_chart on your desktop. Use of the following information column name (Id,Tname,sex,age,phone number,address & date of birth),header name="WDDA" and footer name="Next"format cell(number=General, text alignment=cent, font type=caliberia,font styl=Bold,font size=20 and font color=green) and for column header name use appropriate change format then based on the given information to prepare the document,Remove header and footer custom header and footer. For this operation you have given 1:30 hour and you are expected to provide the answer on the given.

Task2:based on the task1 information to create a chart by using all type of chart use select data into spreadsheet**.**

Task3: Adjust chart layout style

Task3:change column chart into line chart

Unit Five: Print spreadsheet

This unit to provide you the necessary information regarding the following content coverage and topics:

- Previewing spreadsheet

- Selecting basic printer options

- Printing spreadsheet

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Previewing spreadsheet in print preview mode

- Selecting basic printer options

- Printing spreadsheet or selected part of spreadsheet

5.1 Previewing spreadsheet

There may be times when you want to **print a workbook** to view and share your data **offline**. Once you've chosen your **page layout** settings, it's easy to preview and print a workbook from Excel using the **Print** pane.

1. Select the **File** tab. **Backstage view** will appear.
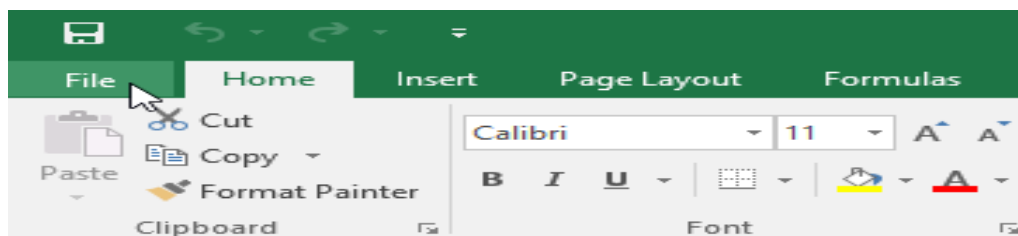

Fig 5.1 file tab

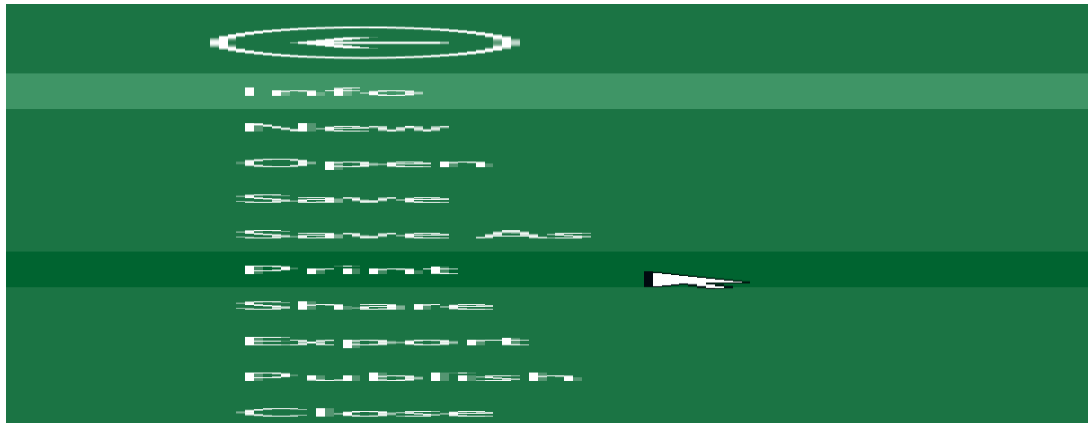2. Select **Print**. The **Print** pane will appear.

Fig 5.2 Backstage

Click the buttons in the interactive below to learn more about using the Print pane.
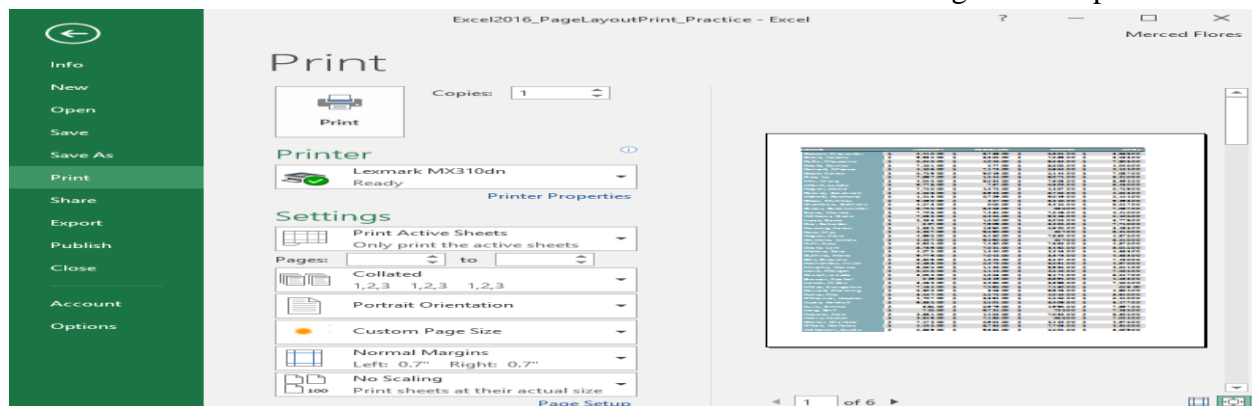
Fig 5.3 print pan

Show Margins / Zoom to Page

The Zoom to Page button on the right will zoom in and out in the Preview pane.

The Show Margins button on the left will show the margins in the Preview pane.

5.2 Selecting basic printer options to printing spreadsheet

1. Navigate to the **Print** pane, then select the desired **printer**.
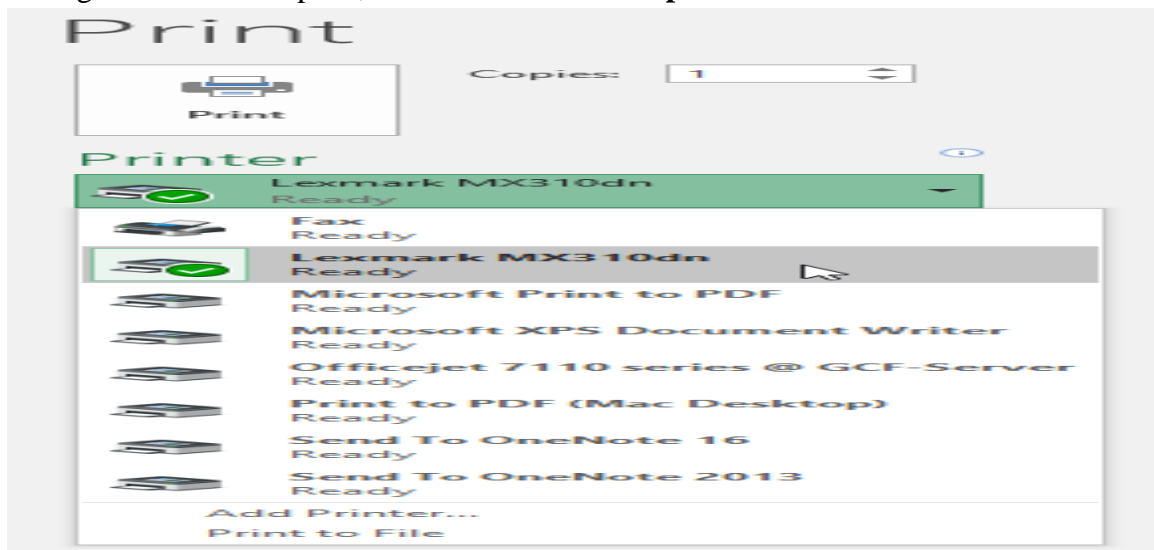
Fig select printer name

2. Enter the number of **copies** you want to print.

Fig 5.5 enter number of copy

3. Select any additional **settings** if needed (see above interactive).
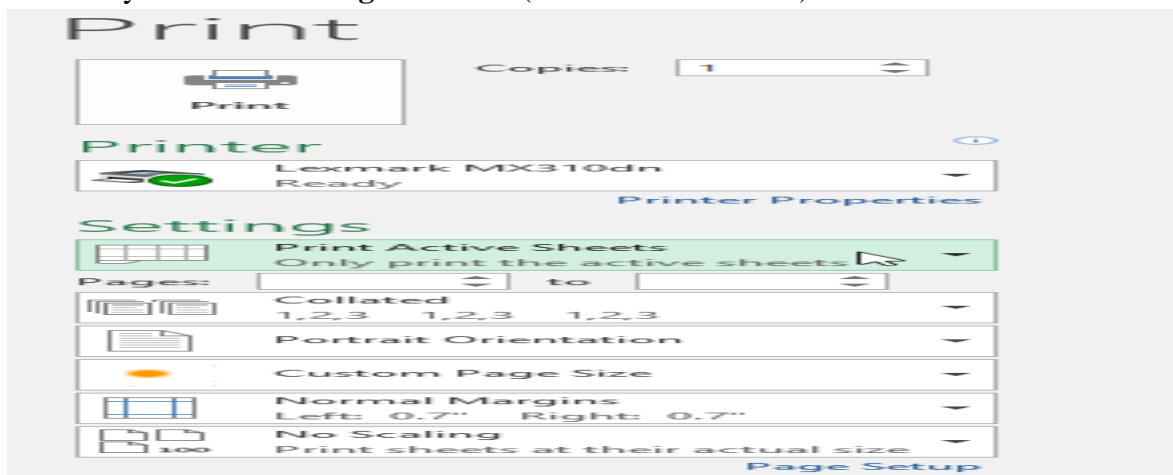
4. Click **Print**.

Fig 5.6 click print

Self-check-5

Test-I Multiple choices

Instruction: Answer the following questions and put your answer.

1. To print a document, press ___
   A. Ctrl+ P
   B. Alt + p
   C. Tab+ P
   D. None of these

2. To see the document before the printout is taken, use
   A. Print Preview
   B. Format pointer
   C. Cut
   D. Paste

Reference

Book (download from google.scholar)

1. QuickStart Guide - From Beginner to Expert (*Excel, Microsoft Office Series*) by William Fischer, 2016, 1533137951, 9781533137951
2. The Unofficial Guide to Microsoft Office Excel 2007 - Page 55
    JuliaKelly, Curt Simmons · 2007
3. Building Financial Models with Microsoft Excel: A Guide for ...
    K. Scott Proctor · 2004
4. Excel 2019 Power Programming with VBA - Page 181
    Michael Alexander, Dick Kusleika · 2019
5. Excel 2013 Power Programming with VBA - Page 315
    John Walkenbach · 2013
6. Excel Formulas and Functions 2020: The Step by Step Excel ...
    Adam Ramirez · 2020 ·

Website Link

1. https://spreadsheetdaddy.com/excel/how-to-change-line-spacing
2. https://www.examtiger.com/mcq/excel-sample-mcq-online-gk-test/page/3/
3. https://www.informit.com/articles/article.aspx?p=1326489&seqNum=4
4. https://support.microsoft.com/en-us/office/ways-to-format-a-worksheet-d5efbdb5-b79b-475a-8c56-99aad944b030
5. https://turbofuture.com/computers/How-to-Format-Spreadsheets-in-Microsoft-Excel
6. https://www.venasolutions.com/blog/financial-planning-analysis/how-to-format-your-excel-spreadsheet-10-tips
7. https://meritnotes.com/computer-quiz/spreadsheet-mcq/3-633/
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