

**Session
16****CELLS GROUP AND EDITING GROUP OF THE
HOME TAB****OBJECTIVES****General Objectives**

In this Session you will learn about Cells Group and Editing Group of the Home Tab of Excel 2016.

Specific Objectives

At the end of this Session, you should be able to understand and practice:

- **The Home Tab**
 - Cells Group
 - Editing Group

LEARNING

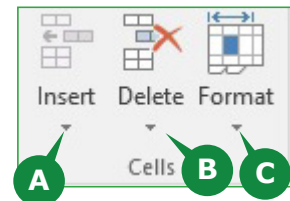
THE HOME TAB

In the previous session, you learnt to apply different styles to the worksheet cells using the Styles group of the Home tab. In this session, you will learn about the Cells group and Editing group of the Home tab.

CELLS GROUP

The commands of the Cells group enable you to insert, delete and format cells, rows, columns or worksheets. This group contains the following commands:

- A Insert:** This command is used to add new cells, rows, columns and worksheets to your workbook.
- B Delete:** This command is used to remove cells, rows, columns and worksheets from your workbook.
- C Format:** This command is used to resize rows and columns as well as organize and protect your worksheets.

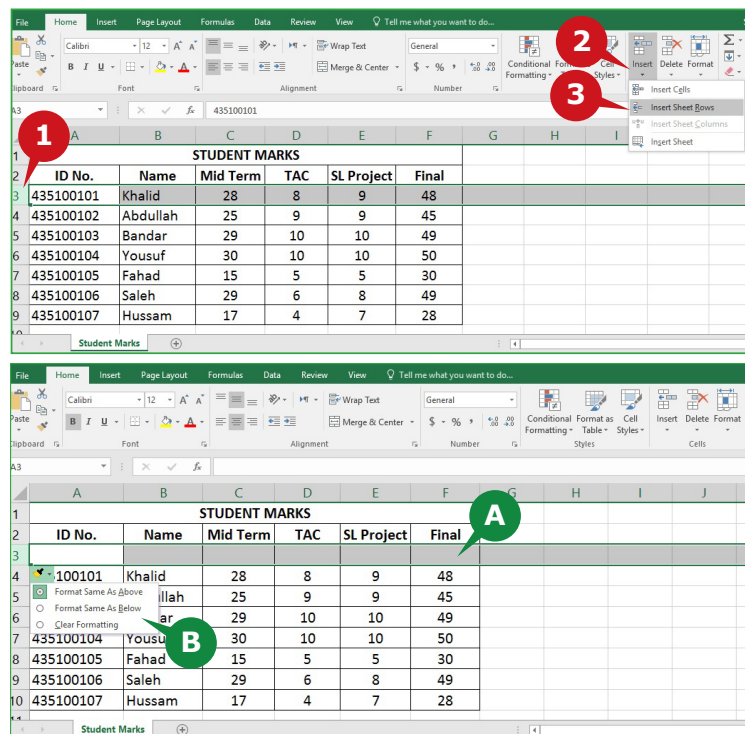


INSERTING ROWS

You can insert single or multiple rows wherever you want in a worksheet. The new row is inserted above the selected row in the worksheet.

To Insert a new row, follow the steps given below:

- 1** Select the row or a cell of the row above which you want to insert the new row.
- 2** Click on the arrow of the **Insert** command in the **Cells** group.
- 3** Click on **Insert Sheet Rows** option from the list.
- A** A new blank row is inserted above the selected row.
- B** **Insert Options** button appears to format the newly inserted row same as above or below row.



To insert multiple rows at a time, you need to select equal number of rows from the worksheet. For example, to insert three new rows, you need to select three rows from the worksheet before using the Insert command.

TIP

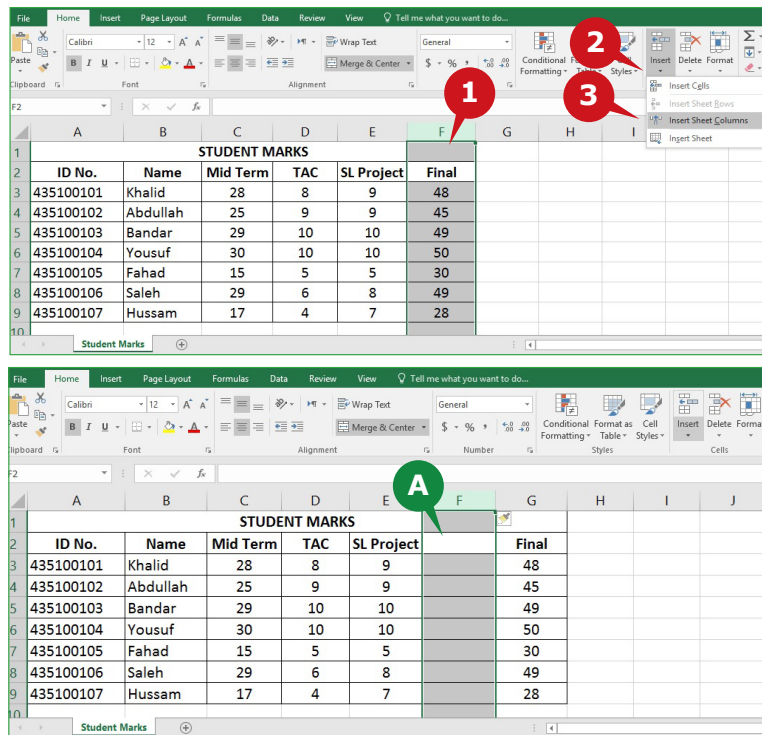
To insert non-adjacent rows, hold down **Ctrl** key and select the desired non-adjacent rows. Click the **Insert** command to insert new rows.

INSERTING COLUMNS

You can insert single or multiple columns wherever you want in a worksheet. The new column is inserted to the left of the selected column.

To Insert a new column, follow the steps given below:

- 1 Select the column or a cell of the column before which you want to insert the new column.
- 2 Click on the arrow of the **Insert** command in the **Cells** group.
- 3 Click on **Insert Sheet Columns** option from the list.
- A A new blank column is inserted to the left of the selected column.



To insert multiple columns at a time, you need to select an equal number of columns from the worksheet before using the Insert command.

TIP

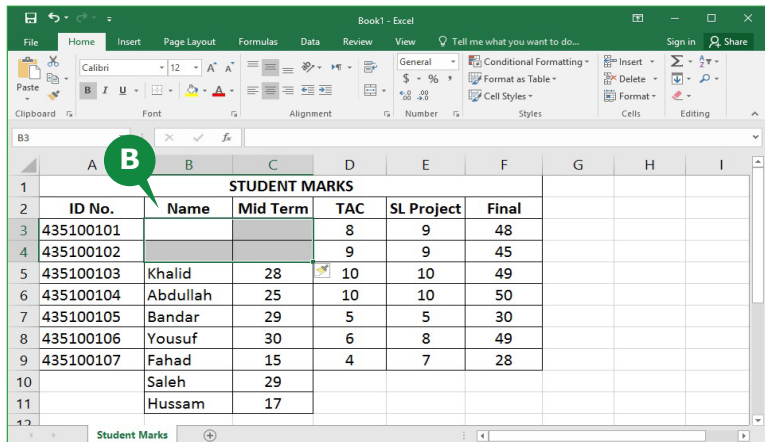
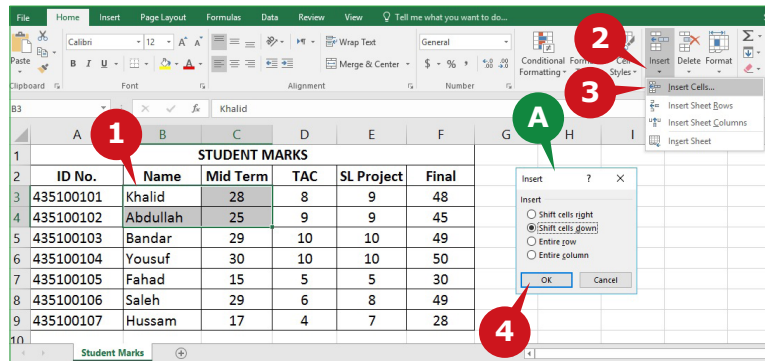
To insert non-adjacent columns, hold down **Ctrl** key and select the desired non-adjacent columns. Click the **Insert** command to insert new columns.

INSERTING AND SHIFTING CELLS

You can also insert single or multiple cells in a worksheet. For inserting multiple cells at a time, you need to select equal number of cells in the worksheet. The new cells are inserted to the left or above selected cells.

To insert cells, follow the steps given below:

- 1 Select a cell or range of cells where you want to insert new cells.
- 2 Click on the arrow of **Insert** command in the **Cells** group.
- 3 Click on **Insert Cells** option from the list.
- A It opens the **Insert Dialog Box** to select an option to **Shift cells right**, **Shift cells down**, **insert Entire Row** or **Entire Column**.
- 4 Click on the **OK** button.
- B Excel inserts new cells in place of selected cells.



TIP

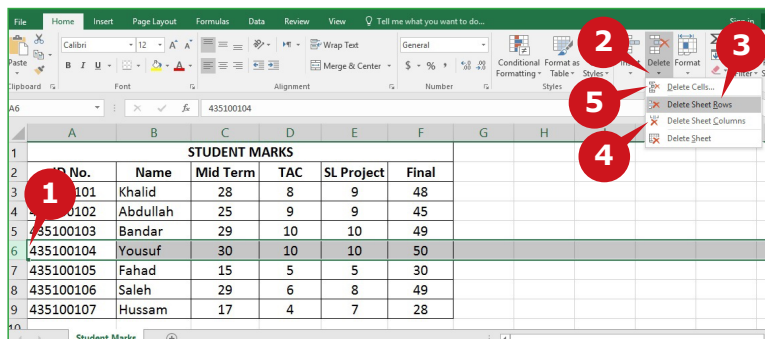
To quickly insert, right click on selected cells, rows or columns and select **insert** option.

DELETING CELLS, ROWS OR COLUMNS

You can delete single or multiple cells, rows and columns that you no longer need in your worksheet. You need to select the cells, rows or columns before using the Delete command.

To delete a row, follow the steps given below:

- 1 Select the row you want to delete.
- 2 Click on the arrow of **Delete** command in the **Cells** group.
- 3 Click on **Delete Sheet Rows** option.



To delete a column:

- 4 Select the column and click on **Delete Sheet Columns** option from the **Delete** command.

To delete a cell:

- 5 Select the cell and click on **Delete Cells** option from the **Delete** command.

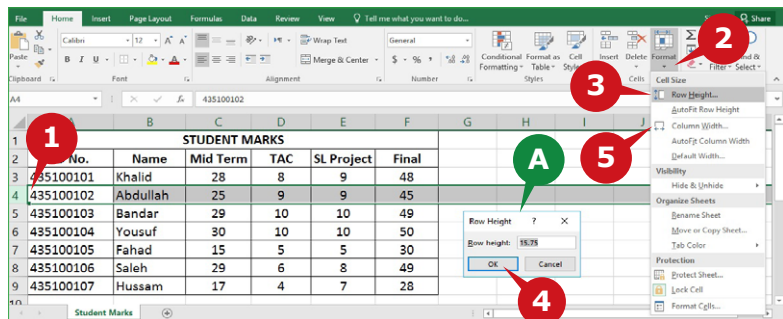
When you delete a cell or a range of cells, you can **Shift cells left**, **Shift cells up**, delete **Entire row**, or delete **Entire column**.

FORMAT ROWS AND COLUMNS

The Format command in the Cells group allows you to adjust the height and width of rows and columns in your worksheet. You can specify row height from **0 to 409** points and column width from **0 to 255** characters. The height of multiple rows or width of multiple columns can also be changed at the same time.

To change row height, follow the steps given below:

- 1 Select the row you want to resize.
- 2 Click on the arrow of **Format** command in the **Cells** group.
- 3 Click on **Row Height** option.
- A It opens **Row Height** dialog box to enter the new row height.
- 4 Click on the **OK** button.



To change the column width:

- 5 Select the column and click on **Column Width** option from the **Format** command. Specify the new column width and click on the **OK** button.

TIPS

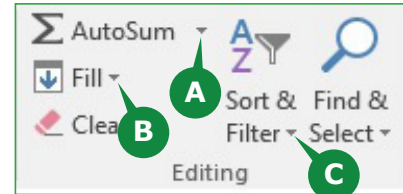
To quickly set the row height or column width, right-click the selected rows or columns and choose the row height or Column Width option, type the value and then click the OK button.

If the row height is zero (0), the row is hidden. Similarly, if the column width is zero (0), the column is hidden.

EDITING GROUP

Excel 2016 helps you to perform calculations or analyze the data in the worksheet. The commands of Editing Group enable you to quickly calculate your data, generate series of numbers and text automatically, sort your data in an order or search for particular data. In this section you will learn to use the following commands:

- A AutoSum:** This Command is used to quickly calculate sum of data in contiguous cells.
- B Fill:** This Command is used to fill the selected cells with the contents of adjacent cells.
- C Sort and Filter:** This Command is used to organize your data in an order or filter out data to display only the specific data you want.

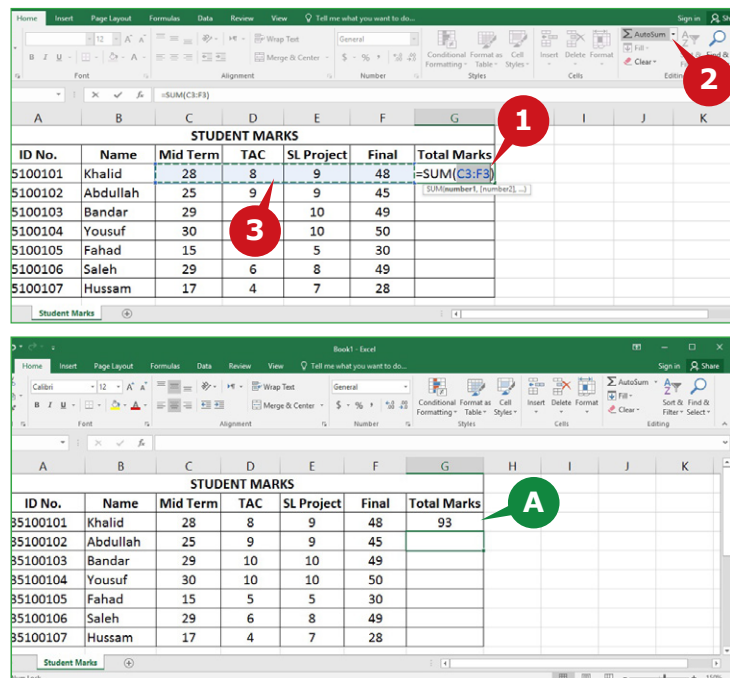


AUTOSUM

AutoSum is a built-in feature of Excel 2016 that allows you to quickly calculate sum of values without manually entering a formula. You can also calculate average, minimum or maximum values using dropdown menu of **AutoSum** command. To use AutoSum command, you need to select the blank cell next to the numbers in a row or a column. AutoSum will automatically sense the range to be calculated and builds the formula for you.

To use AutoSum, follow the steps given below:

- 1** Select the cell where you want to display the sum.
 - 2** Click on the **Auto Sum** command in the **Editing** group.
 - 3** Excel selects range of cells and displays the formula in the selected cell. Press the **Enter Key**.
- A** Sum is displayed in selected cell.



AUTOFILL FOR FASTER DATA CALCULATION

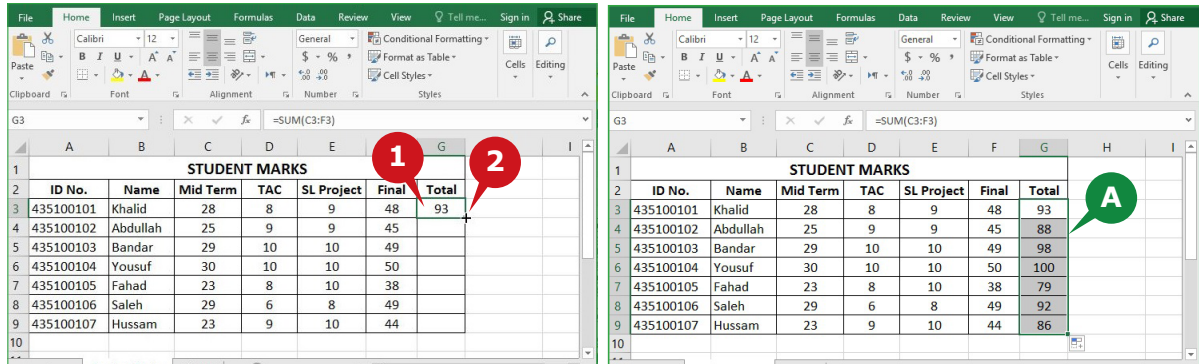
Excel's AutoFill feature is used to copy the contents or formula of a cell to the adjacent cells. While using AutoFill feature, you can use the **Fill handle**, which is a small square in the lower-right corner of the selected cells.

To use **AutoFill** feature, follow the steps given below:

- 1** Select the cell containing the formula you want to AutoFill.
 - 2** Move the mouse pointer to the bottom right corner of the cell. When mouse pointer changes to (+) sign, drag the Fill handle downwards to the last cell you want to fill.
- A** The Formula is copied and the results are shown in the cells.

OTHER USES OF AUTOFILL

Instead of entering data manually, the **AutoFill** feature also allows you to automatically fill a range of cells with data that follows a pattern, for example a series of numbers, dates, weekdays, months or years. To AutoFill a series of numbers, you need to enter numbers in at least two cells and select both cells.



ID No.	Name	Mid Term	TAC	SL Project	Final	Total
435100101	Khalid	28	8	9	48	93
435100102	Abdullah	25	9	9	45	
435100103	Bandar	29	10	10	49	
435100104	Yousuf	30	10	10	50	
435100105	Fahad	23	8	10	38	
435100106	Saleh	29	6	8	49	
435100107	Hussam	23	9	10	44	

To AutoFill cells with Weekdays, follow the step given below:

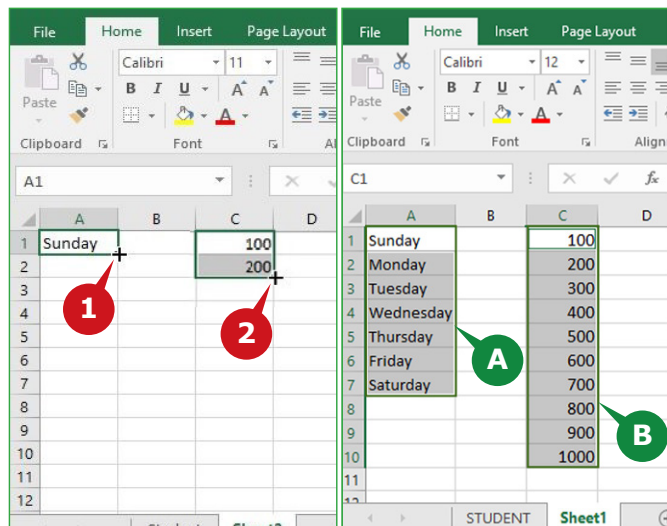
- 1 Enter a weekday in a cell and drag the **Fill handle** downwards as far as you want to fill the cells.
- A Weekdays are filled automatically.

To use AutoFill for generating a series of numbers, follow the step given below:

- 2 Enter the first two numbers of the series.

Select both cells and drag the **Fill handle** downwards as far as you want to fill the cells.

- B Number series is filled automatically.



	A	B	C	D
1	Sunday		100	
2			200	
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

CREATING A FORMULA

Excel 2016 allows you to manually create formulas for calculations. A formula is an expression that performs calculations on data in the cells. A formula uses arithmetic operators like **+**, **-**, *****, **/**, **%**, to perform addition, subtraction, multiplication, division and percentage respectively. In Excel 2016, a formula begins with an equal to (**=**) sign.

To create a formula to multiply two numbers, follow the steps given below:

- 1 Select a cell where you want to display the result.
- 2 Type the formula starting with equal sign (=) followed by the Cell addresses you want to calculate with the (*) sign in between.

The formula will appear in the cell and in the formula bar. Press the **Enter Key** at the end.

- A The result is displayed in the cell you selected.

The first screenshot shows an Excel spreadsheet with columns A (ITEM NAME), B (ITEM PRICE), C (QUANTITY), and D (Total). The formula bar shows '=B2*C2'. The formula is being entered into cell D2.

The second screenshot shows the same spreadsheet, but the formula bar now shows '=B2*C2' and the result '1250' is displayed in cell D2.

	A	B	C	D
1	ITEM NAME	ITEM PRICE	QUANTITY	Total
2	Keyboard	250	5	=B2*C2
3	Mouse	150	5	
4	Flash	50	10	
5	HDD	350	4	
6	CD	20	3	
7				

	A	B	C	D	E
1	ITEM NAME	ITEM PRICE	QUANTITY	Total	
2	Keyboard	250	5	1250	
3	Mouse	150	5		
4	Flash	50	10		
5	HDD	350	4		
6	CD	20	3		
7					

TIP

You can also manually create formulas to calculate the numbers directly. For example, when you type **=12+10** in a cell and press **ENTER** key, Excel calculates the result and displays **22** in that cell.

USING FILL COMMAND

You can use the Fill command to fill the selected cells with the contents of an adjacent cell or range of cells.

To use the Fill command, follow the steps given below:

- 1 Select the Cell or Cell range where you want to copy the contents of adjacent cell or cell range.
- 2 Click on the arrow of **Fill** command in the **Editing** group.
- 3 Select **Down**, **Right**, **Up** or **Left** option to fill the selected cells.
- A The selected cells are filled with the contents of adjacent cells.

FileHomeInsertPage LayoutFormulasDataReviewViewTell me what you want to do...

PasteClipboard

Calibri12A⁺A⁻

B**I**U~~ABC~~

Font

Wrap Text

Alignment

General\$ % & # 0.00 0.00

Number

Conditional Format as Formatting

Table

Styles

Call Styles

InsertDeleteFormat

Σ AutoSum

Fill

Down

Right

Up

Left

Across Worksheets...

Series...

Justify

Flash Fill

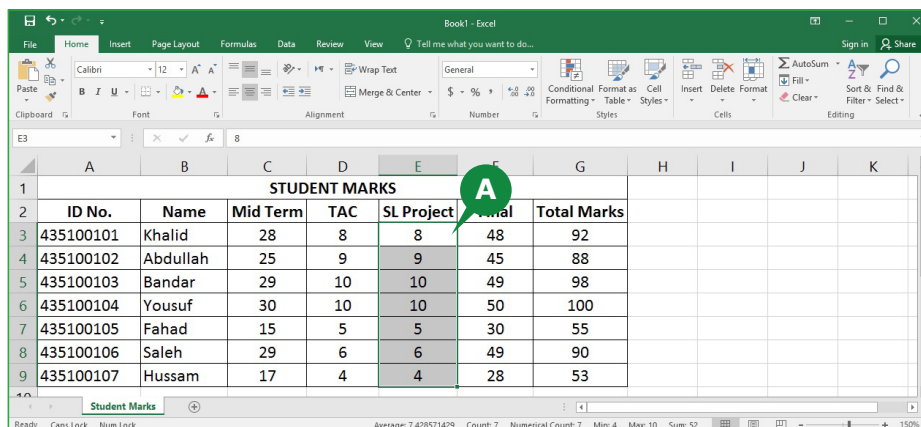
3

1

2

	A	B	C	D	E	F	G	H	I
1	STUDENT MARKS								
2	ID No.	Name	Mid Term	TAC	SL Project	Total	Total Marks		
3	435100101	Khalid	28	8		48	84		
4	435100102	Abdullah	25	9		45	79		
5	435100103	Bandar	29	10		49	88		
6	435100104	Yousuf	30	10		50	90		
7	435100105	Fahad	15	5		30	50		
8	435100106	Saleh	29	6		49	84		
9	435100107	Hussam	17	4		28	49		

Student Marks



STUDENT MARKS						
ID No.	Name	Mid Term	TAC	SL Project	Total	Total Marks
435100101	Khalid	28	8	8	48	92
435100102	Abdullah	25	9	9	45	88
435100103	Bandar	29	10	10	49	98
435100104	Yousuf	30	10	10	50	100
435100105	Fahad	15	5	5	30	55
435100106	Saleh	29	6	6	49	90
435100107	Hussam	17	4	4	28	53

TIP

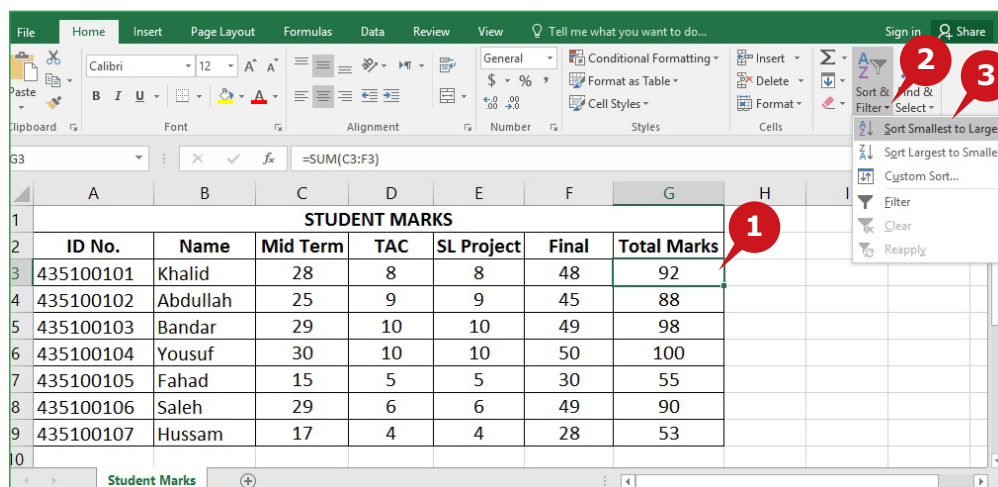
You can also use the Fill command to fill a formula into adjacent range of cells. Select simultaneously, the cell with the formula and the adjacent cells you want to fill. Click the **Fill** command and choose **Down**, **Right**, **Up**, or **Left** option.

SORTING DATA

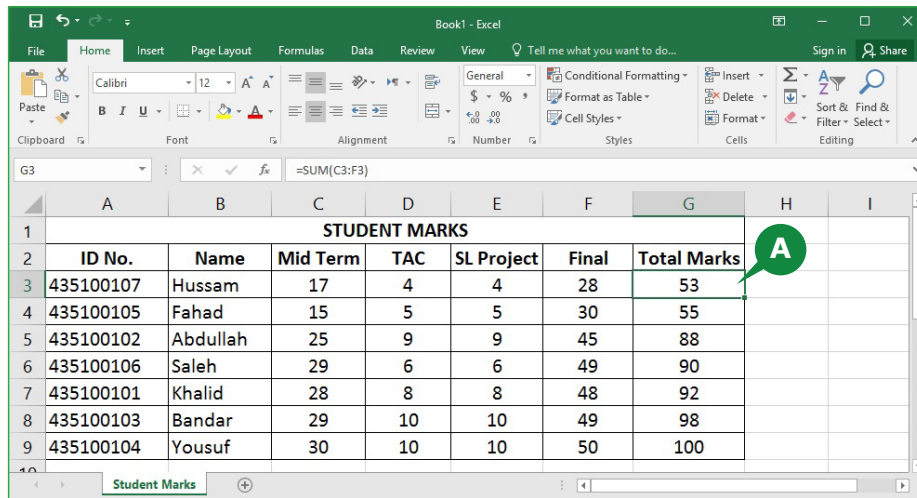
Sorting data is an integral part of data analysis. It allows you to arrange the data in an order to quickly visualize and understand it better. You can sort a list of names in an alphabetical order i.e. (A to Z or Z to A). Similarly, you can sort a list of numbers in Ascending order (Smallest to Largest) or Descending order (Largest to Smallest).

To sort a list of numbers in ascending order, follow the steps given below:

- 1 Select the first cell of the column you want to sort.
- 2 Click on the arrow of **Sort & Filter** command in the **Editing** group.
- 3 Select **Sort Smallest to Largest** option.
- A The data is sorted according to your selection and the accuracy with the other data is maintained.



STUDENT MARKS						
ID No.	Name	Mid Term	TAC	SL Project	Final	Total Marks
435100101	Khalid	28	8	8	48	92
435100102	Abdullah	25	9	9	45	88
435100103	Bandar	29	10	10	49	98
435100104	Yousuf	30	10	10	50	100
435100105	Fahad	15	5	5	30	55
435100106	Saleh	29	6	6	49	90
435100107	Hussam	17	4	4	28	53



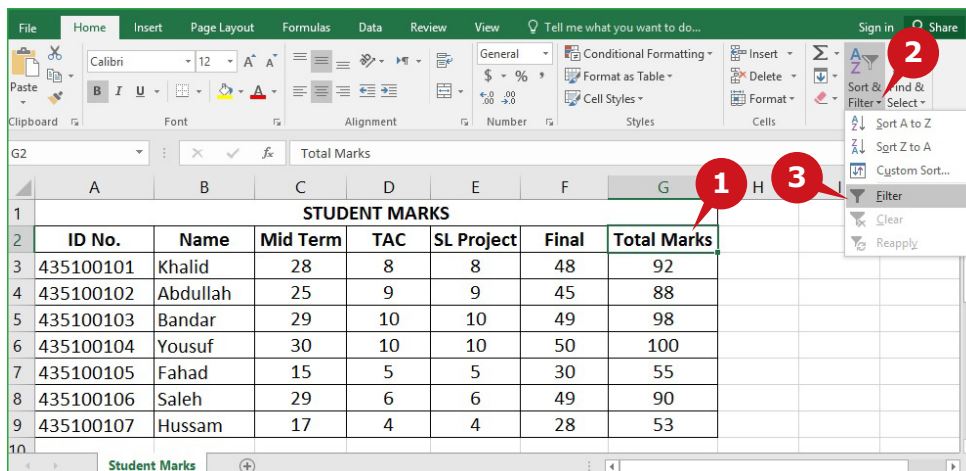
	A	B	C	D	E	F	G	H	I
1	STUDENT MARKS								
2	ID No.	Name	Mid Term	TAC	SL Project	Final	Total Marks		
3	435100107	Hussam	17	4	4	28	53		
4	435100105	Fahad	15	5	5	30	55		
5	435100102	Abdullah	25	9	9	45	88		
6	435100106	Saleh	29	6	6	49	90		
7	435100101	Khalid	28	8	8	48	92		
8	435100103	Bandar	29	10	10	49	98		
9	435100104	Yousuf	30	10	10	50	100		

FILTERING DATA

Filter command allows you to view specific rows in a worksheet, while hiding the other rows that do not meet the specified filtering criteria. When you apply Filter command, Filter Controls appear to the header cell of the columns. You can use the Filter Controls on a column to specify the criteria for filtering the data in the column.

To use the Filter command, follow the steps given below:

- 1 Click on the header cell of the column that you want to filter.
- 2 Click on the arrow of **Sort & Filter** command in the **Editing** group.
- 3 Select the **Filter** option.
- A It will add **Filter Control** with a dropdown arrow to each column heading.
- 4 Click on the arrow of **Filter control** of the column you want to sort.
- 5 Click the **check boxes** according to the filtering criteria you want.
- 6 Click on the **OK** button.
- B The data is filtered and you see only the information according to the filtering criteria.



	A	B	C	D	E	F	G	H	I
1	STUDENT MARKS								
2	ID No.	Name	Mid Term	TAC	SL Project	Final	Total Marks		
3	435100101	Khalid	28	8	8	48	92		
4	435100102	Abdullah	25	9	9	45	88		
5	435100103	Bandar	29	10	10	49	98		
6	435100104	Yousuf	30	10	10	50	100		
7	435100105	Fahad	15	5	5	30	55		
8	435100106	Saleh	29	6	6	49	90		
9	435100107	Hussam	17	4	4	28	53		

The screenshot shows the Excel interface with the 'STUDENT MARKS' table. The formula bar displays $=SUM(C3:F3)$. The table has columns: ID No., Name, Mid Term, TAC, SL Proj, Final, and Total Mark. A filter dropdown menu is open for the 'Total Mark' column, showing options like 'Sort Smallest to Largest', 'Sort Largest to Smallest', and a list of values with checkboxes. Callout A points to the 'Total Mark' header, callout 4 points to the filter arrow, callout 5 points to the 'Select All' checkbox, and callout 6 points to the 'OK' button.

ID No.	Name	Mid Term	TAC	SL Proj	Final	Total Mark
435100101	Khalid	28	8			
435100102	Abdullah	25	9			
435100103	Bandar	29	10			
435100104	Yousuf	30	10			
435100105	Fahad	15	5			
435100106	Saleh	29	6			
435100107	Hussam	17	4			

The screenshot shows the Excel interface with the 'STUDENT MARKS' table. The formula bar displays $=SUM(C3:F3)$. The table has columns: ID No., Name, Mid Term, TAC, SL Proj, Final, and Total Mark. The filter has been applied, and the 'Total Mark' column is highlighted. Callout B points to the 'Total Mark' column.

ID No.	Name	Mid Term	TAC	SL Proj	Final	Total Mark
435100101	Khalid	28	8	8	48	92
435100103	Bandar	29	10	10	49	98
435100104	Yousuf	30	10	10	50	100
435100106	Saleh	29	6	6	49	90



ACTIVITIES

Activity

1

Choose the correct option for the following statements.

1. A new row is inserted _____ the selected row in the worksheet.
 - a. Below
 - b. Right
 - c. Above
 - d. Left
2. The _____ command is used to change the row height or column width.
 - a. Insert
 - b. Format
 - c. Change
 - d. Font Size
3. The _____ command is used to fill the selected cells with the contents of adjacent cells.
 - a. AutoFill
 - b. AutoSum
 - c. Fill
 - d. Sort
4. _____ feature allows you to arrange the data in an order, according to the contents of a column.
 - a. Sort
 - b. AutoFill
 - c. Filter
 - d. Format

Activity**2**

Fill in the blanks with the appropriate words provided in the box.

Filter	Sort	Cells	AutoFill	AutoSum
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1. _____ group enables you to insert, delete and format the rows or columns of worksheet.
2. The _____ command is used to quickly add a range of numbers in a column or a row.
3. _____ feature is used to generate a series of numbers, weekdays, months, etc.
4. _____ option temporarily hides unwanted data to show only the data you need.

Activity**3**

Practice the following tasks on your computer.

1. Create a blank Workbook. Select the column range from A to E and increase the column width to 30.
2. Enter the data of 5 students under the column headings "ID Number", "Name", "Midterm marks", and "Final marks". Enter the column heading "Total marks" and calculate total marks for each student. (Hint: You can use AutoSum command.)
3. Generate name of the months starting from "January" to "December" in the cell range B10 to B21. (Hint: You can use AutoFill feature.)
4. Display only the details of the students who have a "Total mark" less than 50.