

Question 6: Create a worksheet titled 'Employee Data' with columns: Name, Age, Department. Add 5 rows of data.

Format as follows:

- Bold and center - align the header row
- Apply a fill color
- Auto-fit column width

Answer -

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The worksheet is named "Employee Data". The data is organized into three columns: "Name", "Age", and "Department". The first row (row 1) contains the column headers: "Name", "Age", and "Department". The subsequent rows (rows 2 through 6) contain the following data:

	Name	Age	Department
1	Prajyot Waikar	25	IT
2	Krusha Patel	22	Sales
3	Gayatri Mahajan	24	Marketing
4	Prabhav Rana	24	Operation
5	Riya Shahi	26	Finance

The first row (row 1) is bolded and centered. The entire table is highlighted with a light blue selection color. The Excel ribbon and various toolbars are visible at the top, and the Windows taskbar is visible at the bottom.

Question 7: Demonstrate how to insert and delete multiple rows and columns in Excel.

Answer –

Insert multiple rows and columns in Excel.

Rows -

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The data is organized into a table with columns labeled "Name", "Age", "Department", "Location", and "Salary". A new row has been inserted at the top of the table, with the header row now at row 2. The new row contains the values: Name (Riya Shahu), Age (26), Department (Finance), Location (Lucknow), and Salary (19,500). The formula bar at the bottom shows the formula `=Employee Data`. The status bar at the bottom right indicates the date as 20-01-2026.

	Name	Age	Department	Location	Salary
1	Prajyot Waikar	25	IT	Mumbai	40,000
2	Krusha Patel	22	Sales	Nagpur	38,000
3	Gayatri Mahajan	24	Marketing	Nagpur	42,000
4	Prabhat Rana	24	Operation	Delhi	15,000
5	Riya Shahu	26	Finance	Lucknow	19,500
6	Rushi	29	IT	Mumbai	22,000
7	John	32	Marketing	Pune	20,000
8	Priya	27	Finance	Delhi	32,000

Columns -

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The data is organized into a table with columns labeled "Name", "Age", "Department", and "Location". A new column has been inserted between the "Age" and "Department" columns, with the header row now at row 2. The new column is labeled "Action". The new row contains the value "Mumbai" under "Action". The formula bar at the bottom shows the formula `=Employee Data`. The status bar at the bottom right indicates the date as 20-01-2026.

	Name	Action	Age	Department	Location
1	Prajyot Waikar		25	IT	Mumbai
2	Krusha Patel		22	Sales	Nagpur
3	Gayatri Mahajan		24	Marketing	Nagpur
4	Prabhat Rana		24	Operation	Delhi
5	Riya Shahu		26	Finance	Lucknow
6	Rushi		29	IT	Mumbai
7	John		32	Marketing	Pune
8	Priya		27	Finance	Delhi

Delete multiple rows and columns in Excel.

Rows -

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The data is organized into three main sections: "Employee Data" (rows 1-9), "Ready" status bar (26°C, Party cloudy), and system tray (Windows Start button, Search bar, taskbar icons, battery level 18:53, date 20-01-2026).

	Name	Age	Department	Location	Salary
1	Prajyot Waikar	25	IT	Mumbai	40,000
2	Krusha Patel	22	Sales	Nagpur	38,000
3	Gayatri Mahajan	24	Marketing	Nagpur	42,000
4	Prabhav Rana	24	Operation	Delhi	15,000
5	Riya Shahu	26	Finance	Lucknow	19,500
6	Rushi	29	IT	Mumbai	22,000
7	John	32	Marketing	Pune	20,000
8	Priya	27	Finance	Delhi	32,000

Columns -

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The data is organized into three main sections: "Employee Data" (rows 1-9), "Ready" status bar (26°C, Party cloudy), and system tray (Windows Start button, Search bar, taskbar icons, battery level 18:53, date 20-01-2026).

	Name	Age	Department	Location	Salary
1	Prajyot Waikar	25	IT	Mumbai	40,000
2	Krusha Patel	22	Sales	Nagpur	38,000
3	Gayatri Mahajan	24	Marketing	Nagpur	42,000
4	Prabhav Rana	24	Operation	Delhi	15,000
5	Riya Shahu	26	Finance	Lucknow	19,500
6	Rushi	29	IT	Mumbai	22,000
7	John	32	Marketing	Pune	20,000
8	Priya	27	Finance	Delhi	32,000

Question 8: Use Excel's 'Find and Replace' feature to update department names in a sample table.

Answer -

The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The spreadsheet contains a table of employee data with columns: Name, Age, Department, Location, and Salary. The "Department" column values are Marketing, Sales, Marketing, Operation, Finance, IT, Marketing, HR, and Finance. A "Find and Replace" dialog box is overlaid on the spreadsheet. In the "Replace with:" field, the value "HR" is entered, replacing the previous value "Marketing". The "Replace All" button is highlighted.

Name	Age	Department	Location	Salary
Prajyot Waikar	25	IT	Mumbai	40,000
Krusha Patel	22	Sales	Nagpur	38,000
Gayatri Mahajan	24	Marketing	Nagpur	42,000
Prabhak Rana	24	Operation	Delhi	15,000
Riya Shahu	26	Finance	Lucknow	19,500
Rushi	29	IT	Mumbai	22,000
John	32	Marketing	Pune	20,000
Priya	27	Finance	Delhi	32,000

The screenshot shows the same Microsoft Excel spreadsheet after the "Find and Replace" operation. The "Department" column values have been updated: Marketing has been replaced by HR. The table now looks like this:

Name	Age	Department	Location	Salary
Prajyot Waikar	25	IT	Mumbai	40,000
Krusha Patel	22	Sales	Nagpur	38,000
Gayatri Mahajan	24	HR	Nagpur	42,000
Prabhak Rana	24	Operation	Delhi	15,000
Riya Shahu	26	Finance	Lucknow	19,500
Rushi	29	IT	Mumbai	22,000
John	32	HR	Pune	20,000
Priya	27	Finance	Delhi	32,000

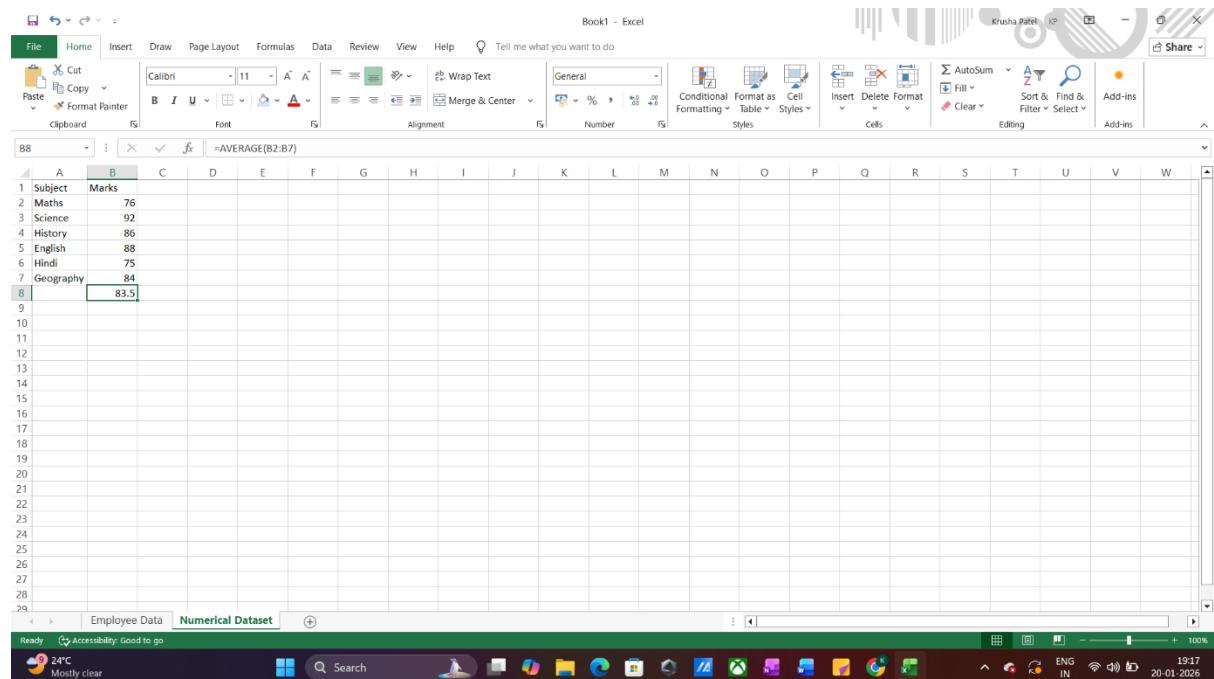
Question 9: Create a small numerical dataset and apply the following functions:

- AVERAGE

- MAX

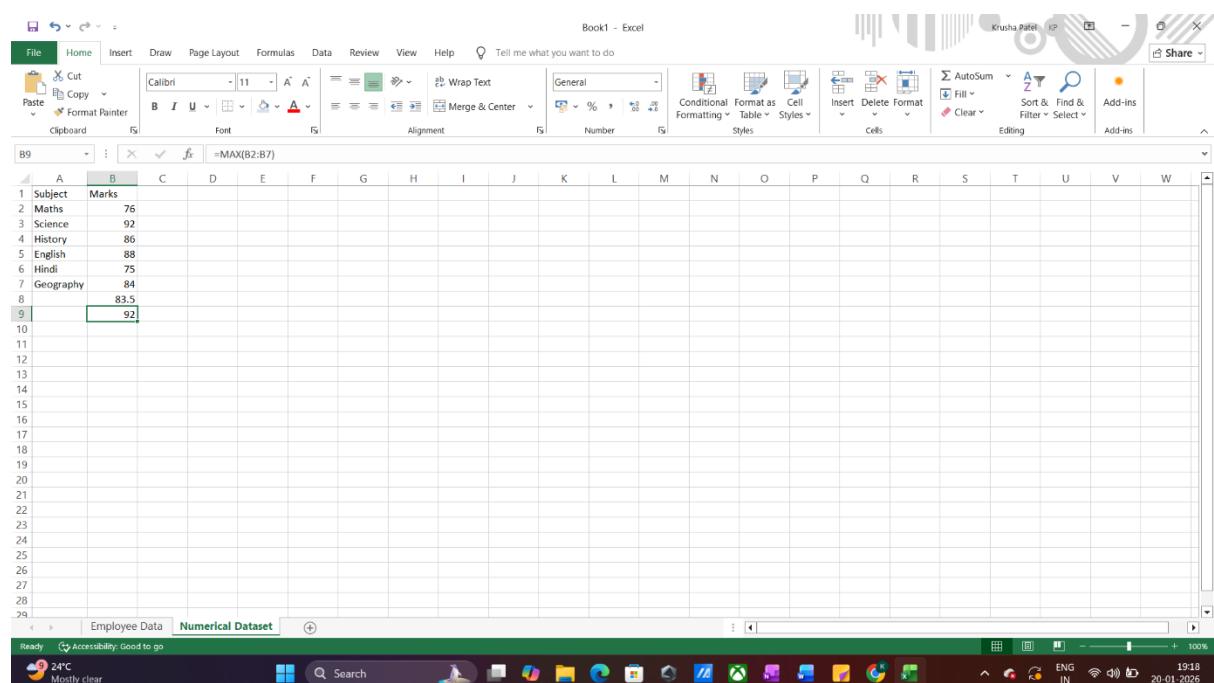
- MIN

Answer –



The screenshot shows a Microsoft Excel spreadsheet titled "Book1 - Excel". The data is organized into two columns: "Subject" and "Marks". The subjects listed are Maths, Science, History, English, Hindi, and Geography. The marks for each subject are 76, 92, 86, 88, 75, and 84 respectively. Row 8 contains the formula =AVERAGE(B2:B7), which calculates the average mark as 83.5. The formula bar at the top also displays this formula.

Subject	Marks
Maths	76
Science	92
History	86
English	88
Hindi	75
Geography	84
	83.5



This screenshot shows the same Microsoft Excel spreadsheet as the previous one. The data is identical, with subjects and their corresponding marks. In this version, the formula in row 9 is =MAX(B2:B7), which calculates the maximum mark as 92. The formula bar at the top also displays this formula.

Subject	Marks
Maths	76
Science	92
History	86
English	88
Hindi	75
Geography	84
	83.5
	92

Book1 - Excel

File Home Insert Draw Page Layout Formulas Data Review View Help Tell me what you want to do

Cut Copy Paste Format Painter Clipboard F5

Font Calibri 11 A A Alignment F5

Wrap Text Merge & Center F5

General Number F5

Conditional Formatting Styles Cell Styles F5

Insert Delete Format Cells F5

AutoSum Fill Sort & Filter Clear

Editing Add-ins Add-ins

B10 : X ✓ f =MIN(B2:B7)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	Subject	Marks																				
2	Maths	76																				
3	Science	92																				
4	History	86																				
5	English	88																				
6	Hindi	75																				
7	Geography	84																				
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Employee Data Numerical Dataset

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Question 10: You're working with a dataset that contains missing values. As a Data Scientist, explain how you'd detect and handle missing data using Excel.

Mention tools like:

- Go To Special
- ISBLANK
- COUNTBLANK

Answer –

Handling Missing Data in Excel

In data science, missing data (often called "nulls" or "blanks") can skew statistical results and lead to errors in machine learning models. Using Excel, the process of managing this data involves three key steps:

Quantification, Identification, and Remediation.

1. Quantifying Missing Values

Before processing, I use statistical functions to understand the volume of missing data.

- COUNTBLANK: I use the formula =COUNTBLANK(range) to count the number of empty cells in a column. This helps me decide if a column has too much missing data to be useful (e.g., if >50% is missing, I might drop the column entirely).
- ISBLANK: For row-by-row logic, I use =ISBLANK(A2). This returns a Boolean (TRUE/FALSE), which is useful for creating "Flag" columns that filter out incomplete records during the cleaning phase.

2. Identifying and Selecting Blanks

To handle blanks efficiently without scrolling through thousands of rows, I use the Go To Special feature.

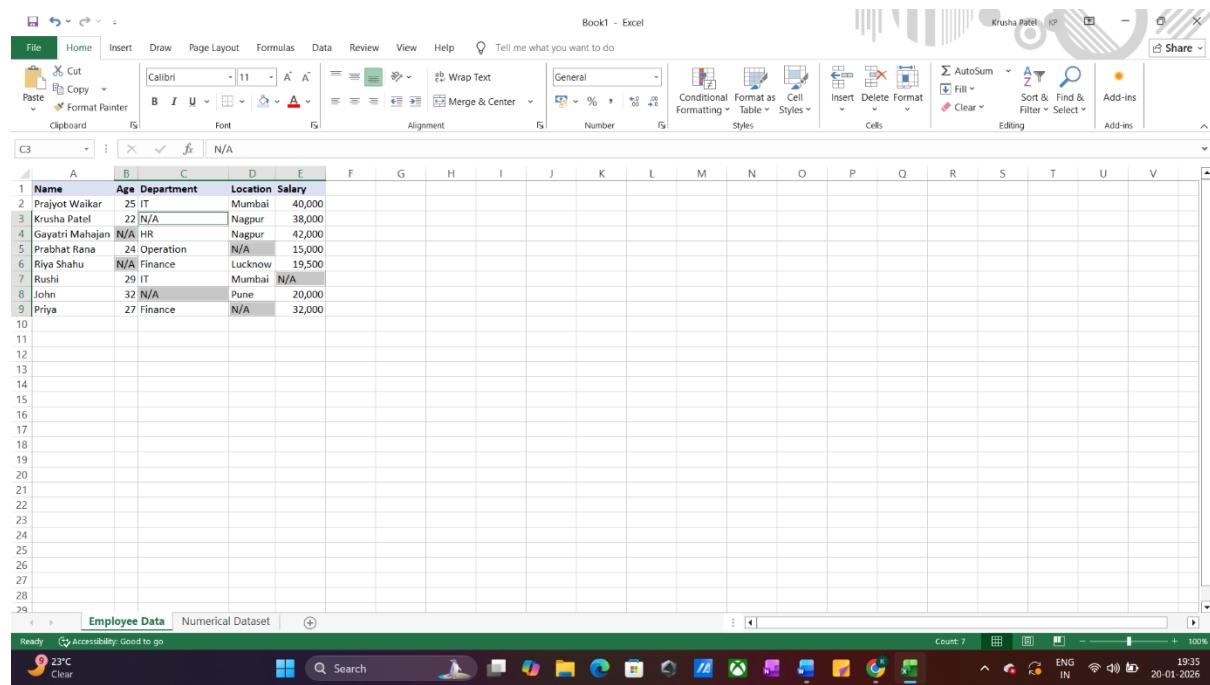
- Process:
 1. Highlight the entire dataset or a specific column.
 2. Press F5 (or Ctrl + G) and click the Special... button.
 3. Select the Blanks radio button and click OK.
- Result: Excel instantly selects every empty cell within the range. This allows for "Bulk Action"—any value typed or formatting applied will affect only the missing entries.

3. Handling Strategies

Once the blanks are identified via Go To Special, I apply one of the following treatments based on the nature of the data:

Method	Execution	Use Case
Deletion	Select Blanks > Right Click > Delete > Entire Row.	When the missingness is non-random or the row is unusable.
Zero-Filling	Select Blanks > Type 0 > Press Ctrl + Enter.	When a blank implies a lack of activity (e.g., \$0 sales).
Mean Imputation	Calculate column average > Select Blanks > Type average > Ctrl + Enter.	To maintain the statistical average of a numerical feature.
Forward Fill	Select Blanks > Type = then press Up Arrow > Ctrl + Enter.	Common in time-series data to fill a gap with the last known value.

Screenshot of “GO TO SPECIAL”



Screenshot of “ISBLANK”

The screenshot shows an Excel spreadsheet titled "Book1 - Excel". The data is as follows:

	Name	Age	Department	Location	Salary
1	Prajyot Waikar	25	IT	Mumbai	40,000
2	Krusha Patel	22		Nagpur	38,000
3	Gayatri Mahajan		HR	Nagpur	42,000
4	Prabhav Rana	24	Operation		15,000
5	Riya Shahu		Finance	Lucknow	19,500
6	Rushi	29	IT	Mumbai	
7	John	32		Pune	20,000
8	Priya	27	Finance		32,000
10					
11		25	IT	Mumbai	40000
12		22	0	Nagpur	38000
13		0	HR	Nagpur	42000
14		24	Operation	0	15000
15		0	Finance	Lucknow	19500
16		29	IT	Mumbai	0
17		32	0	Pune	20000
18		27	Finance	0	32000
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29					

The formula `=IF(ISBLANK(B2:E9),0,B2:E9)` is entered in cell B11.

Screenshot of “COUNTBLANK”

The screenshot shows an Excel spreadsheet titled "Book1 - Excel". The data is as follows:

	Name	Age	Department	Location	Salary
1	Prajyot Waikar	25	IT	Mumbai	40,000
2	Krusha Patel	22		Nagpur	38,000
3	Gayatri Mahajan		HR	Nagpur	42,000
4	Prabhav Rana	24	Operation		15,000
5	Riya Shahu		Finance	Lucknow	19,500
6	Rushi	29	IT	Mumbai	
7	John	32		Pune	20,000
8	Priya	27	Finance		32,000
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The formula `=COUNTBLANK(B2:E9)` is entered in cell C11.