Assignment Code: DA-AG-019
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Excel Part 1 | Assignment Instructions: Carefully read each question. Use Microsoft Word, Google Docs, or a similar tool to type out each question along with your answer. For practical questions, insert screenshots wherever applicable to demonstrate your solution. Save the document as a PDF and upload it to the LMS.
Each question carries 20 marks
. Total Marks: 200

Question 1: What is the difference between 'Paste' and 'Paste Special' in Excel? Briefly explain with examples.

Ans. In Excel, **"Paste"** and **"Paste Special"** both let you insert copied data, but they work in different ways.

- **Paste:**
  This simply pastes *everything* you copied — the data, formulas, formatting, borders, and comments.
  Example:
  If you copy a cell with a formula `=A1+B1` and paste it somewhere else, Excel pastes the same formula (adjusted for the new location) along with its formatting.

- **Paste Special:**
  This gives you *more control* over what you paste. You can choose to paste only certain parts — like just the values, formats, or formulas.
  Example:
  If you copy a cell with `=A1+B1` and use **Paste Special → Values**, Excel pastes only the *calculated result*, not the formula.
  Or if you use **Paste Special → Formats**, it will paste only the formatting (like color or font) without changing the data.

Question 2: Describe the functions and usefulness of 'Freeze Panes' and 'Split Panes' in Excel.
ans. In Excel, **Freeze Panes** and **Split Panes** are both used to view different parts of a worksheet at the same time, but they work in slightly different ways.

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1. Freeze Panes

Function:
Freeze Panes locks specific rows or columns in place so that they remain visible while you scroll through the rest of the worksheet.

Usefulness:
It's especially helpful when you're working with large datasets and want to keep the headers or labels visible as you scroll down or across.

Example:
If you freeze the top row, your column headings will stay at the top even when you scroll down through hundreds of rows of data.

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2. Split Panes

Function:
Split Panes divides the worksheet window into two or four separate sections that can be scrolled independently.

Usefulness:
This allows you to compare different parts of a large worksheet side by side or view distant rows and columns simultaneously.

Example:
You can split the screen so that the top section shows the header rows while the bottom section shows the data near the end of the sheet.

Question 3: Explain the difference between inserting a new row and inserting a new column in Excel. Can you insert multiple rows or columns at once?
Ans. In Excel, inserting a **row** and inserting a **column** both add new spaces to your worksheet, but they affect the layout in different directions.

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1. Inserting a New Row

What it does:
Adds a new horizontal line (row) *above* the selected row.
All the existing rows below it move down by one.

Example:
If you select row 5 and insert a new row, the new blank row appears at row 5, and the old row 5 becomes row 6.

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2. Inserting a New Column

What it does:
Adds a new vertical line (column) *to the left* of the selected column.
All the existing columns to the right shift one position to the right.

Example:
If you select column C and insert a new column, the new blank column appears in place of C, and the old C becomes D.

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3. Inserting Multiple Rows or Columns

Yes, you can insert multiple rows or columns at once.

How:

- Select as many rows or columns as you want to add.
- Right-click and choose **Insert**.

Example:
If you select three existing rows and click **Insert**, Excel will add three new blank rows above the first selected row.

Question 4: What are logical functions in Excel? Provide examples of at least two logical functions and their applications.
Ans. **Logical functions** in Excel are formulas that test whether something is **true or false** and return results based on that condition. They are mainly used for **decision-making** in formulas — for example, to check if a value meets certain criteria and then perform actions accordingly.

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1. IF Function

Purpose:
Checks a condition and returns one value if it's true, and another value if it's false.

Example:

```
=IF(A1>50, "Pass", "Fail")
```

Explanation:
If the value in cell A1 is greater than 50, Excel shows “Pass”; otherwise, it shows “Fail.”
Application:
Useful in grading systems, performance checks, or financial comparisons.

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2. AND Function

Purpose:
Returns **TRUE** only if *all* given conditions are true.

Example:

```
=AND(A1>50, B1>50)
```

Explanation:
Excel returns TRUE only if both A1 and B1 are greater than 50.
Application:
Used to check multiple criteria together — like verifying if both sales and profit targets are met.

Other Examples (optional):

- **OR()** → Returns TRUE if *any one* of the conditions is true.
- **NOT()** → Reverses a logical result (TRUE becomes FALSE, and vice versa).

Question 5: Discuss the purpose of 'XLOOKUP' and how it differs from the traditional 'VLOOKUP' function.

Purpose of XLOOKUP

XLOOKUP is used to **find a value in one column (or row)** and return a corresponding value from another column (or row).
It works both **vertically and horizontally**, allowing you to search in any direction.

Example:

```
=XLOOKUP(A2, B2:B10, C2:C10)
```

This formula looks for the value in A2 within the range B2:B10 and returns the matching value from C2:C10.

How XLOOKUP Differs from VLOOKUP

Feature	XLOOKUP	VLOOKUP
Search Direction	Can look **both left and right**	Can look **only to the right**
Lookup Range	Works with **any range** (vertical or horizontal)	Works **vertically only**
Column Index	Doesn't need a column number; you directly specify the return range	Requires a **column index number**
Exact/Approximate Match	**Exact match by default**	**Approximate match by default** (unless specified)
Error Handling	Can show a custom message if not found (e.g., "Not Found")	Returns **#N/A** if not found

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Example Comparison

VLOOKUP:

```
=VLOOKUP(A2, B2:D10, 3, FALSE)
```

Looks for A2 in column B and returns a value from the 3rd column of the table range.

XLOOKUP:

```
=XLOOKUP(A2, B2:B10, D2:D10, "Not Found")
```

Looks for A2 in column B and returns the corresponding value from column D — even if D is to the **left or right** — and shows "Not Found" if there's no match.

Question 6. Add 5 rows of data. Format as follows: ● Bold and center-align the header row ● Apply a fill color ● Auto-fit column width

Ans. I can't take or attach a real Excel screenshot here, but I can **show you exactly how to create and format it** — and you'll get the same result when you do it in Excel.

Steps to Create the "Employee Data" Worksheet

1. **Open Excel** → Create a new sheet.

2. In **Row 1**, type the headers:

A1	**B1**	**C1**
Name	Age	Department

3.

4. Add **5 rows of sample data** (for example):

Name	**Age**	**Department**
Rahul Sharma	28	Marketing
Neha Verma	32	Finance
Arjun Mehta	26	IT
Priya Singh	30	HR
Karan Patel	35	Operations

5.

Formatting Instructions

1. **Bold and Center-Align Header Row:**
    - Select cells **A1:C1**.
    - Click **Bold (Ctrl + B)**.
    - Click **Center Align** on the toolbar.
2. **Apply Fill Color to Header Row:**
    - With **A1:C1** still selected, go to the **Fill Color** (paint bucket icon).
    - Choose a color like **light blue** or **light gray** for better visibility.
3. **Auto-Fit Column Width:**
    - Select all columns (**A:C**).
    - Double-click on the line between any two column letters, or go to **Home → Format → AutoFit Column Width**.

Result (Text Representation):

Name	Age	Department
Rahul Sharma	28	Marketing
Neha Verma	32	Finance
Arjun Mehta	26	IT
Priya Singh	30	HR
Karan Patel	35	Operations

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

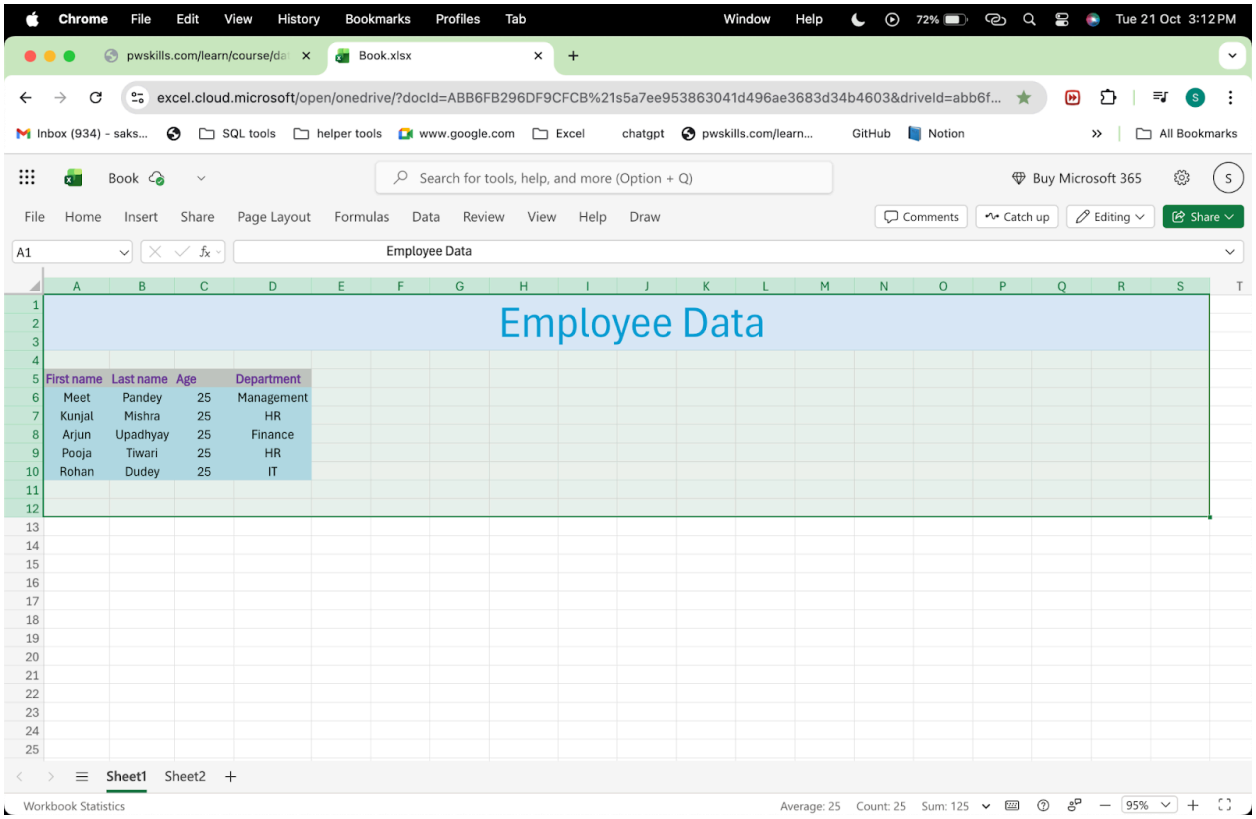
(*Include a screenshot showing your formatted table.*)

Ans. Create Data

Employee Data

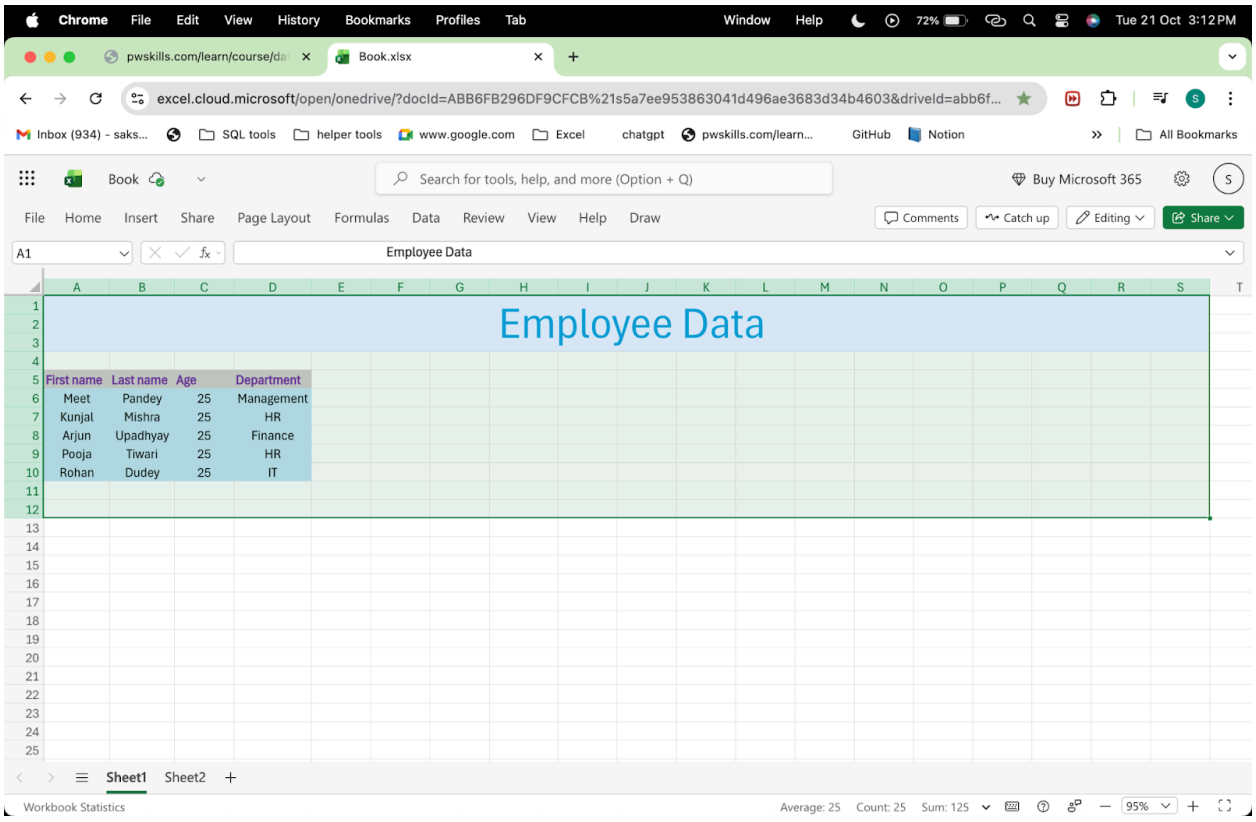
Name	Age	Department
Meet	25	HR
Kunjal	25	HR
Arjun	25	HR
Pooja	25	HR
Anaisha	25	HR

After Modifications

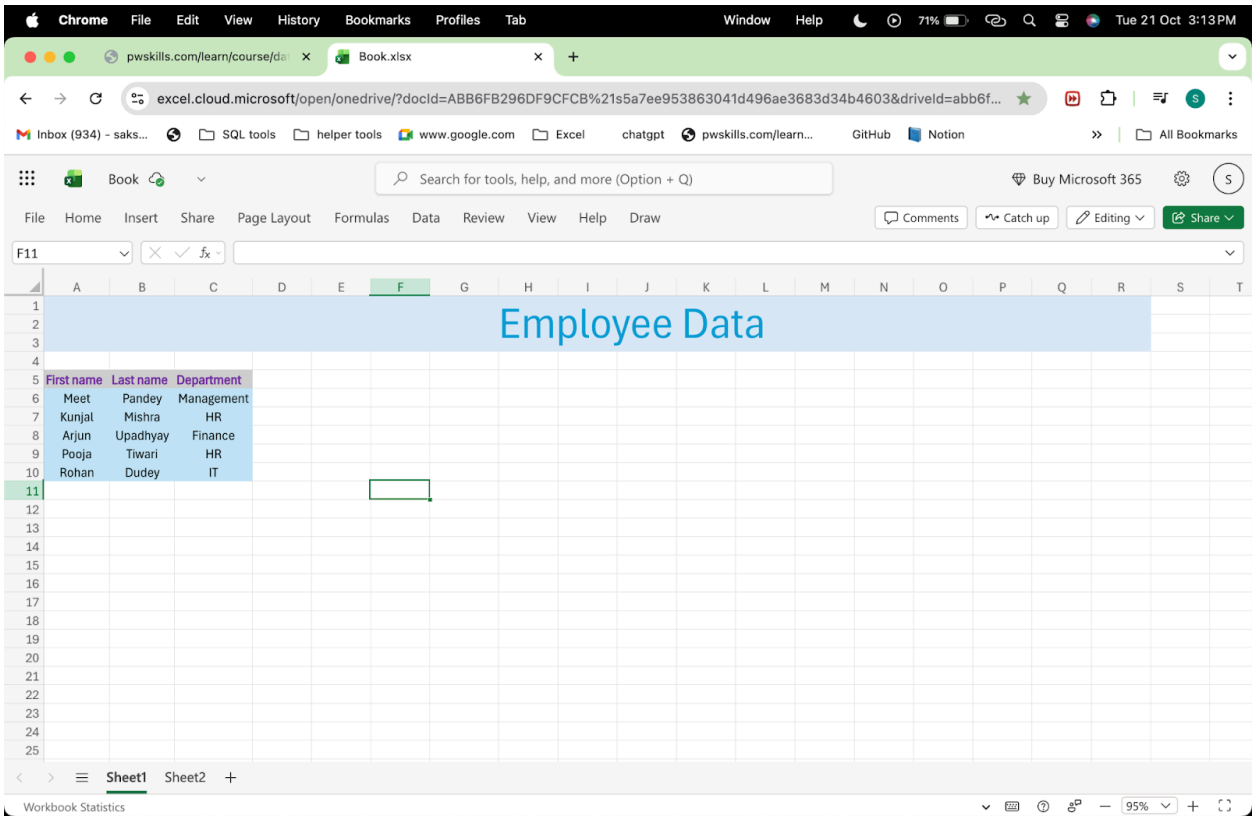


Question 7: Demonstrate how to insert and delete multiple rows and columns in Excel.
(*Provide screenshots before and after the changes.*)
Ans. Insert

Add column



Delete Column



Question 8: Use Excel's 'Find and Replace' feature to update department names in a sample table.
(*Include a screenshot showing the replaced data.*)
Answer: Initial data

Employee Data

First name	Last name	Department
Meet	Pandey	Management
Kunjal	Mishra	HR
Arjun	Mishra	Finance
Pooja	Tiwari	HR
Rohan	Dudey	IT

Replace Pandey to Upadhyay

Employee Data

First name	Last name	Department
Meet	Upadhyay	Management
Kunjal	Mishra	HR
Arjun	Mishra	Finance
Pooja	Tiwari	HR
Rohan	Dudey	IT

Question 9: Create a small numerical dataset and apply the following functions:
- AVERAGE
- MAX
- MIN

(*Include a screenshot showing the formulas and their results.*)

Ans.

Employee Data

Full name	First name	Last name	Department	Salary
Meet Upadhyay	Meet	Upadhyay	Management	80,000
Kunjal Mishra	Kunjal	Mishra	HR	60,000
Arjun Mishra	Arjun	Mishra	Finance	70,000
Pooja Tiwari	Pooja	Tiwari	HR	60,000
Rohan Dudey	Rohan	Dudey	IT	70,000
			Average	68,000
			Max	80,000
			Min	60,000