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Lab 9 Activity 1 – Setting Up a Marks Sheet

Objective - Organize student marks data in a structured table.

1. Open a new Excel workbook.
2. **Define column headers:** Roll Number, Name, Subject 1, Subject 2, Subject 3, Subject 4, Subject 5, Total, Percentage, Grade.
3. **Enter sample student data, ensuring each subject has a maximum of 40 marks.
4. **Save the workbook.

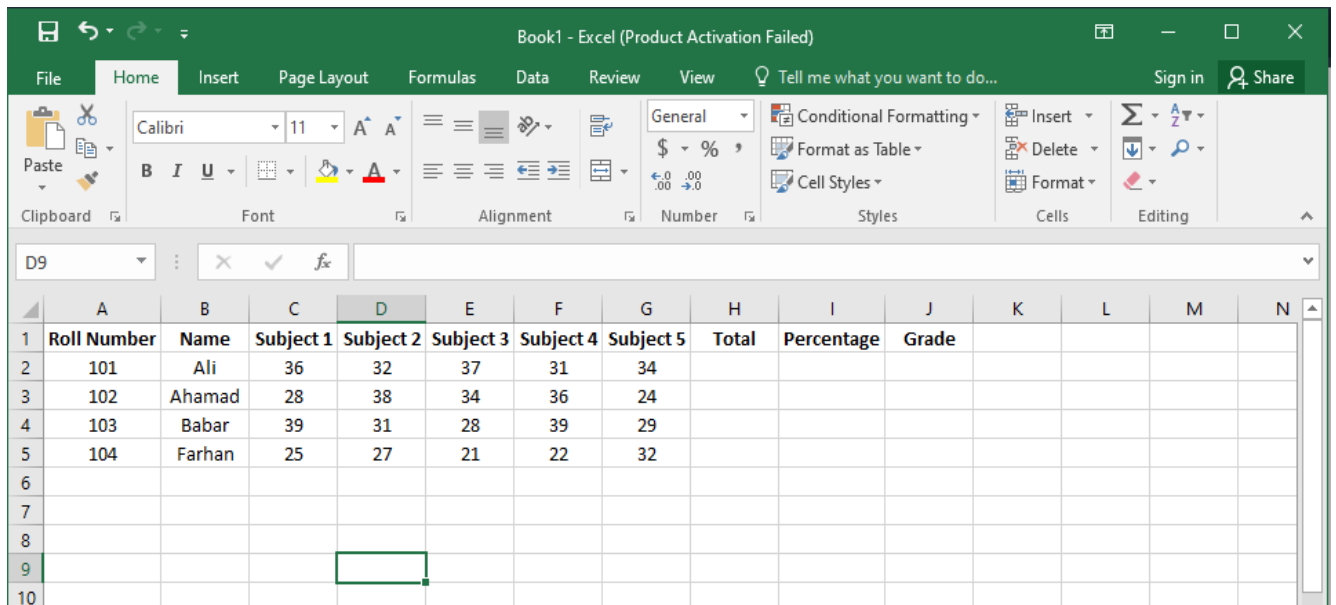_____

Solutions:

Task 1:

New Excel Workbook:
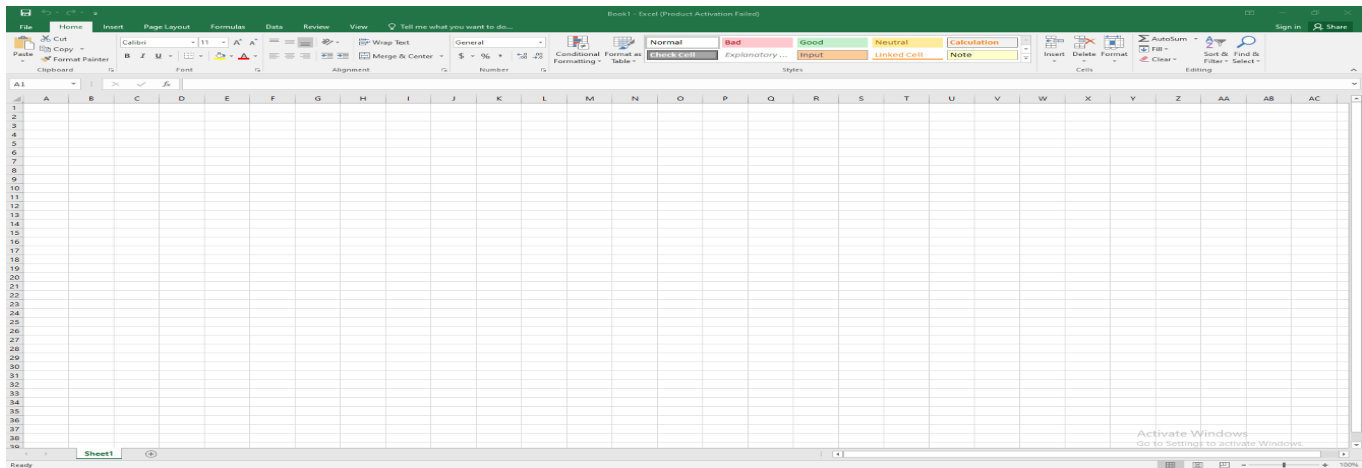
Task 2:

- Click on **Cell A1** and type: **Roll Number**
- Click on **Cell B1** and type: **Name**
- Click on **Cell C1** and type: **Subject 1**
- Click on **Cell D1** and type: **Subject 2**
- Click on **Cell E1** and type: **Subject 3**
- Click on **Cell F1** and type: **Subject 4**
- Click on **Cell G1** and type: **Subject 5**
- Click on **Cell H1** and type: **Total**
- Click on **Cell I1** and type: **Percentage**
- Click on **Cell J1** and type: **Grade**
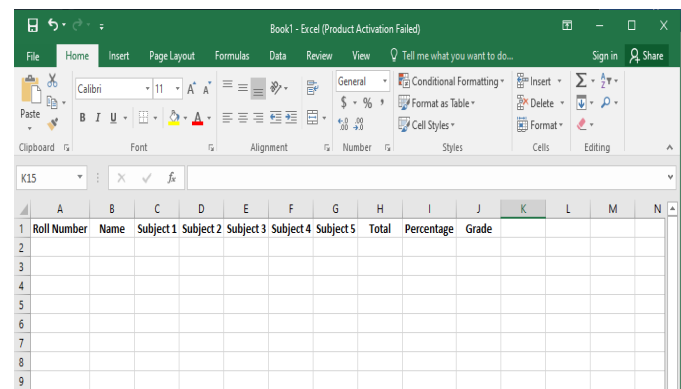
Task 3:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Roll Number	Name	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	Total	Percentage	Grade				
2	101	Ali	36	32	37	31	34							
3	102	Ahamad	28	38	34	36	24							
4	103	Babar	39	31	28	39	29							
5	104	Farhan	25	27	21	22	32							
6														
7														
8														
9														
10														

Task 4:

- ✓ Click **File > Save As**.
- ✓ Choose a location and select **Excel Workbook (.xlsx)** format.
- ✓ Name it **"Student_Marks.xlsx"** and click **Save**.

Lab 9 Activity 2 - Calculating Total Marks and Percentage

Objective - Use formulas to calculate total marks and percentage automatically.

1. In the Total column, use =SUM(C2:G2) (assuming C2:G2 contains subject marks).

2. In the Percentage column, use =(H2/200)*100 (assuming H2 contains the total marks out of 200).

3. Use the fill handle to apply formulas to other rows.

4. Format percentage values to show up to two decimal places.

5. Save the file.

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Solutions:

Task 1:

- Click on **Cell H2** (under the "Total" column).
- Enter the formula: "=SUM(C2:G2)"
- Press **Enter**.

Task 2:

- Click on **Cell I2** (under the "Percentage" column).
- Enter the formula: "=(H2/200)*100"
- Press **Enter**

Task 3:
- Use the **fill handle** (a small square at the bottom-right of the cell) and **drag down** to apply the formula to other rows.

Task 4:

1. Select all percentage values (e.g., **I2 to I10**).
2. Click **Home > Number Format > More Number Formats**.
3. Select **Number**, set **Decimal places** to **2**, and click **OK**.

Task 5:

Click **File > Save As**.
Choose a location and select **Excel Workbook (.xlsx)** format.
Name the file **"Student_Marks.xlsx"** and click **Save**.

Lab 9 Activity 3 - Assigning Grades Using IF Function

Objective: Implement conditional logic to assign letter grades.

1. In the Grade column, use the following IF function:
   =IF(I2<50,"F",IF(I2<60,"E",IF(I2<70,"D",IF(I2<80,"C",IF(I2<90, "B","A")))))
2. Press Enter and use the fill handle to apply it to other rows.
3. Apply conditional formatting to highlight failing students in red.
4. Save and close the file.

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Solutions:

Task 1:

- Click on **Cell J2** (under the "Grade" column).
- Enter the following formula:

=IF(I2<50,"F",IF(I2<60,"E",IF(I2<70,"D",IF(I2<80,"C",IF(I2<90,"B","A")))))

Task 2:
- Press **Enter** and use the **fill handle** (drag the small square at the bottom-right of the cell) to copy the formula to other rows.

Task 3:

- Select the entire **Grade column** (e.g., **J2:J50**, depending on your data).
- Click **Home > Conditional Formatting > New Rule**.
- Choose **"Format cells that contain"**.
- In the **Format Cells dialog**, set the rule:

Format only cells that contain → **Cell Value** → **Equal to** → Enter "B"
Click **Format**, go to the **Fill** tab, and select **Light green color.**
Click **OK**.

- Click **Apply** and **OK**.

Task 4:
- Click **File > Save**.
- **Close Excel.**

Lab 9 Assignment

Objective: Create a marks sheet for a class of 10 students with at least 5 subjects. Calculate total marks, percentage, and assign grades using Excel functions. Format the sheet professionally and apply conditional formatting to highlight distinctions and failures.

Instructions:

1. Open a new workbook and create a marks sheet.

2. Enter 10 sample student data with marks for five subjects.

3. Maximum Marks for each subject is 40.

4. Use formulas to calculate total marks and percentage.

5. Implement the grading system using the IF function.

6. Format and save the file before submission.

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Solutions

Clipboard | Font | Alignment | Number | Styles

J8 : × ✓ fx =IF(I8<50,"F",IF(I8<60,"E",IF(I8<70,"D",IF(I8<80,"C",IF(I8<90,"B","A")))))

	A	B	C	D	E	F	G	H	I	J	K
1	Roll Number	Name	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	Total	Percentage	Grade	
2	101	Ali	36	32	37	31	34	170	85	B	
3	102	Ahmad	28	38	37	36	24	163	81.5	B	
4	103	Babar	39	31	28	39	29	166	83	B	
5	104	Farhan	25	27	21	22	32	127	63.5	D	
6	105	Shakeel	26.5	26.5	16.5	26	29.5	125	62.5	D	
7	106	Imtiaz	24.3	24.3	10.8	23.6	29.4	112.4	56.2	E	
8	107	Zulfiqar	22.1	22.1	5.1	21.2	29.3	99.8	49.9	F	
9	108	Asif	19.9	19.9	20	18.8	29.2	107.8	53.9	E	
10	109	Junaid	17.7	17.7	25	16.4	29.1	105.9	52.95	E	
11	110	Shamim	15.5	15.5	15	14	29	89	44.5	F	
12											
13											
14											
15											