# Lab 9 Activity 1 - Setting Up a Marks Sheet

**Objective -** Organize student marks data in a structured table.

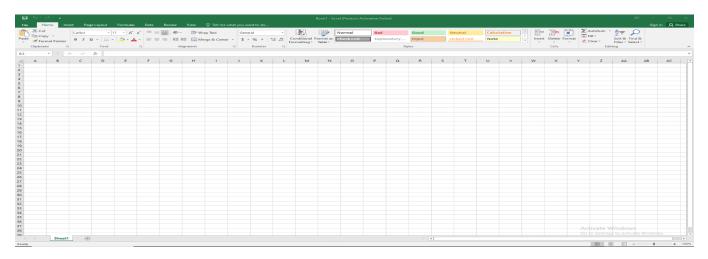
- 1. Open a new Excel workbook.
- **2.** Define column headers: Roll Number, Name, Subject 1, Subject 2, Subject 3, Subject 4, Subject 5, Total, Percentage, Grade.
- 3. Enter sample student data, ensuring each subject has a maximum of 40 marks.
- 4. Save the workbook.

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#### **Solutions:**

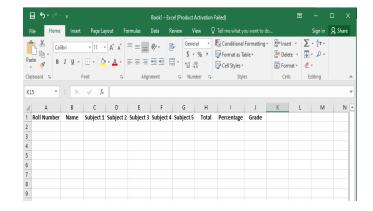
#### Task 1:

### **New Excel Workbook:**



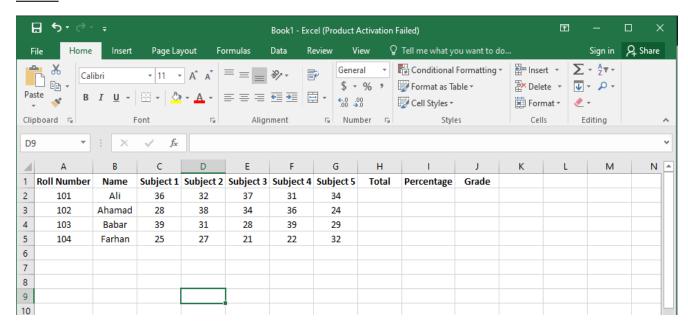
### **Task 2:**

- 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



# Submitted by Muhammad Hashir Rafique (BSCS)

# Task 3:



# 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.

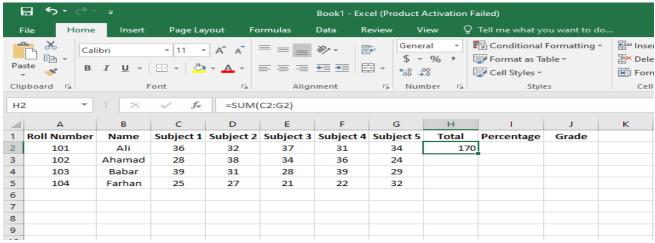
- 1. In the Total column, use =SUM(C2:G2) (assuming C2:G2 contains subject marks).
- 2. In the Percentage column, use =(H2/200)\*100 (assuming H2 contains the total marks out of 200).
- 3. Use the fill handle to apply formulas to other rows.
- 4. Format percentage values to show up to two decimal places.
- 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:

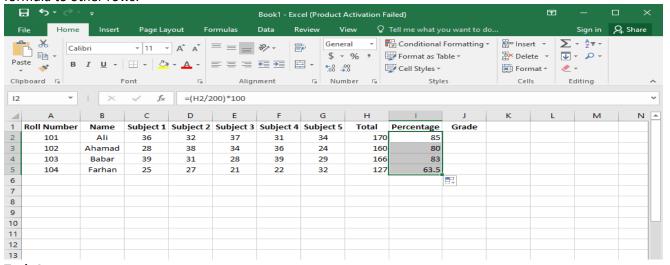
- Click on Cell I2 (under the "Percentage" column).
- Enter the formula: "=(H2/200)\*100"
- Press Enter

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4	А	В	С	D	E	F	-	G	н	1	J	K			
1	Roll Number	Name	Subject 1	Subject 2	Subject 3	Subject 4	Sub	ject 5	Total	Percentage	Grade				
2	101	Ali	36	32	37	31	3	34	170	85					
3	102	Ahamad	28	38	34	36	1	24							
4	103	Babar	39	31	28	39	1	29							
5	104	Farhan	25	27	21	22	3	32							
6															
7															
8															

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### **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.



### <u>Task 4:</u>

- 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.

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4	Α	В	С	D	E	F	G	н	1	J	K	L	М	N	1 _
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							_
3	102	Ahamad	28	38	34	36	24	160							_
4	103	Babar	39	31	28	39	29	166							_
5	104	Farhan	25	27	21	22	32	127	63.50						_
6															4
7															-11
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9															HL
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# **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

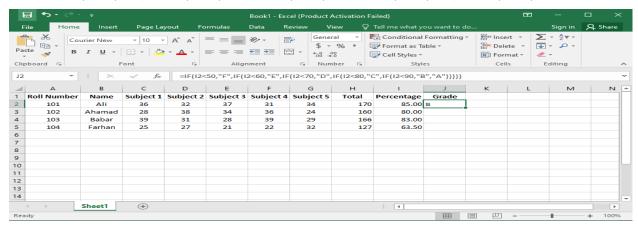
**Objective:** Implement conditional logic to assign letter grades.

- 1. In the Grade column, use the following IF function: =IF(12<50,"F",IF(12<60,"E",IF(12<70,"D",IF(12<80,"C",IF(12<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.

## **Solutions:**

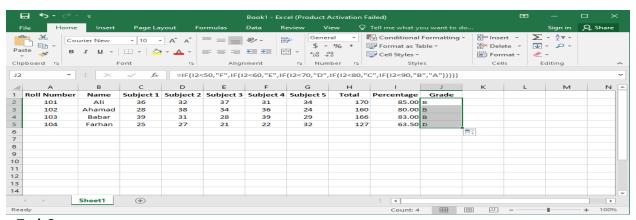
#### Task 1:

- Click on Cell J2 (under the "Grade" column).
- Enter the following formula:
- =IF(I2<50, "F", IF(\bar{12}<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.



<u>Task 3:</u>

### Submitted by Muhammad Hashir Rafique (BSCS)

- 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**. ₩ 5+3+ = Book1 - Excel (Product Activation Failed) Sign in 2 Share Review ∑ - AT-▼ Conditional Formatting ▼ Em Insert → General - A A ≡ ≡ **|** 8> -Format as Table > Delete 🕶 ₩ - 🔎 -Paste B I <u>U</u> - | <u>□</u> - | <u>△</u> - <u>A</u> - | <u>=</u> <u>=</u> <u>=</u> <u>=</u> <u>=</u> <u>=</u> <u>=</u> <u>=</u> <u>=</u> 00. 0.→ Cell Styles \* Format \* **⋞** -Б ∏a Number Cells Editing Clipboard 5 Alignment  $f_{x}$ =IF(I5<50,"F",IF(I5<60,"E",IF(I5<70,"D",IF(I5<80,"C",IF(I5<90,"B","A"))))) В C D Е F G н Ν 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 85.00 B 3 102 Ahamad 28 38 34 36 24 160 80.00 B 4 103 Babar 39 31 28 39 29 166 83.00 B 5 25 27 104 Farhan 21 22 32 127 63.50 D 6 7 8 9 10 11 12 13 14 Sheet1 1 4 F. 

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### Task 4:

Ready

- 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.

**Solutions** 

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4	Α	В	С	D	Е	F	G	Н	1 1	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	В		
3	102	Ahmad	28	38	37	36	24	163	81.5	В		
4	103	Babar	39	31	28	39	29	166	83	В		
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												
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