EXCEL CASE STUDY

Tasks to Complete

- each question has to be answered for the most recent year
- answer each question with a visual, unless asked for any other inputs

1. Data Preparation

- Open the **Superstore dataset** in Excel.
- Ensure there are no missing values or incorrect data entries in the following key columns:
  `Order Date`, `Region`, `Category`, `Sub-Category`, `Sales`, `Profit`, `Quantity`.

2. Summary Statistics

- Calculate the following using formulas:
  - Total Sales, Total Profit, and Total Quantity.
  - Average Sales and Profit per order.

3. Regional Performance Analysis

- Create a **Pivot Table** to show the total sales and profit for each region.
- Add conditional formatting to highlight the region with the highest and lowest profit.

4. Product Category Insights

- Create a **Pivot Table** to show the total sales and profit by product category and sub-category.
- Use a slicer to filter the data by region.

5. Monthly Trends

- Extract the month and year from the `Order Date` column using formulas.
- Create a line chart showing monthly sales trends.

6. Top 5 Products by Profit

- Use a formula to rank products based on their total profit.
- Create a table showing the top 5 products, including their `Sales`, `Profit`, and `Quantity`.

7. Visualization

- Create the following charts:
    1. A bar chart to show sales and profit by region.
    2. A pie chart to show the contribution of each product category to total sales.
    3. A line chart for monthly sales trends (from Task 5).

8. Key Insights and Recommendations

- Add a new sheet titled **Summary**, and include:
    - 3 insights based on your analysis (e.g., least profitable region, top-performing category).
    - 2 recommendations for improving sales and profit.

Bonus Task

- Identify any product sub-categories with negative profit. Do you have any suggestion from the data to improve performance for that sub-category ?

Deliverables

- An Excel workbook (*.xlsx) with:
    1. **Cleaned Data**
    2. **Pivot Tables** for analysis
    3. **Charts** for visualization
    4. A **Summary Sheet** with insights and recommendations