Excel Dashboard Activity: Building an Interactive Dashboard

Objective:

Your task is to create a dynamic and interactive sales dashboard using 5 different Pivot Tables, each providing a unique data summary. The dashboard will include 5 different visuals based on these tables. You will use advanced Excel features like Pivot Tables, Slicers, Timelines, and Calculated Columns to present meaningful insights.

Dataset Overview:

- Columns: Country, Product, Units Sold, Total Cost, Total Profit, Date
- The dataset contains sales records for different products across various countries, including details on units sold, costs, profits, and dates.

Instructions:

1. Creating Calculated Columns:

- Add a Profit Margin column to calculate the profitability of each sale:
  Profit Margin = (Total Profit / Total Cost) * 100

- Add a Revenue column to represent the total sales amount:
  Revenue = Total Cost + Total Profit

2. Create 5 Pivot Tables and Summarize Data:

Pivot Table 1: Total Revenue by Country

- Insert a Pivot Table.
- Rows: Country
- Values: Revenue (Summarised as Sum)
- This pivot table will give an overview of the total revenue generated by each country.

Pivot Table 2: Total Units Sold by Product

- Insert a Pivot Table.
- Rows: Product
- Values: Units Sold (Summarised as Sum)
- This table will help you see how many units of each product were sold.

Pivot Table 3: Average Profit Margin by Product

- Insert a Pivot Table.
- Rows: Product
- Values: Profit Margin (Summarised as Average)
- This pivot table will show the profitability of each product.

Pivot Table 4: Total Revenue by Product over Time

- Insert a Pivot Table.
- Rows: Date (group by month or year)
- Columns: Product
- Values: Revenue (Summarised as Sum)
- This table tracks how revenue for each product changes over time.

Pivot Table 5: Units Sold by Country and Product

- Insert a Pivot Table.
- Rows: Country
- Columns: Product
- Values: Units Sold (Summarised as Sum)
- This table will display how product sales vary across different countries.

3. Add Slicers:

- Insert Slicers for Country and Product so that you can filter the pivot tables dynamically.

4. Add a Timeline:

- Insert a Timeline based on the Date column to filter data by specific months or years. This will allow you to analyze trends over time.

5. Visualizing the Pivot Tables with 5 Charts:

Visual 1: Total Revenue by Country (Bar Chart)

- Create a Bar Chart from Pivot Table 1 to visualize total revenue generated by each country.
- Apply a slicer to filter this chart by product or date.

Visual 2: Total Units Sold by Product (Column Chart)

- Create a Column Chart from Pivot Table 2 to visualize the total units sold for each product.
- Link this chart with the Slicers for country and date.

Visual 3: Average Profit Margin by Product (Pie Chart)

- Use Pivot Table 3 to create a Pie Chart that illustrates the profit margin percentages for each product.
- This chart will show the contribution of each product to overall profitability.

Visual 4: Total Revenue by Product Over Time (Line Chart)
- Use Pivot Table 4 to create a Line Chart that shows how total revenue for each product has changed over time.
- This chart can be filtered using the Timeline.

Visual 5: Units Sold by Country and Product (Stacked Column Chart)
- From Pivot Table 5, create a Stacked Column Chart that displays units sold for each product in different countries.
- The stacked format helps in comparing product performance across countries.

Advanced Features to Include:
- Conditional Formatting: Apply conditional formatting to your pivot tables, such as color scales for profit margins and revenue, to make key insights stand out visually.
- Dynamic Interactivity: Ensure that all the charts are interactive with the Slicers and Timeline so that the dashboard updates automatically when you filter the data.
- Calculated Fields: Challenge yourself by adding a calculated field in your pivot tables to explore metrics like Profit Growth Rate or Average Revenue per Unit Sold.

Deliverable:
Submit an Excel file with:
1. 5 Pivot Tables summarising key data (Revenue, Units Sold, Profit Margin).
2. Slicers for dynamic filtering by country and product.
3. A Timeline to filter by date.
4. 5 Visuals (Bar, Column, Pie, Line, and Stacked Column charts) based on the pivot tables.
5. Conditional Formatting to enhance data visualization.