

## Tableau Assignment

**Question 1 :** What is Tableau? Explain its importance in Business Intelligence and how it helps in data-driven decision-making.

Answer :

Tableau is a powerful data visualization and business intelligence tool that helps users analyze data and present insights through interactive dashboards, charts, and reports. It allows users to connect to multiple data sources, perform visual analytics, and share insights easily.

In Business Intelligence, Tableau helps organizations make data-driven decisions by transforming raw data into meaningful visual insights. It enables faster trend identification, pattern analysis, and performance monitoring, supporting better strategic and operational decisions.

**Question 2 :** Explain the role of the following Tableau components: a) Data Pane b) Worksheet c) Dashboard d) Story

Answer :

**a) Data Pane :** The Data Pane displays all available fields from the data source, divided into Dimensions and Measures. It is used to drag fields into worksheets.

**b) Worksheet :** A worksheet is where individual visualizations such as charts and tables are created.

**c) Dashboard :** A dashboard combines multiple worksheets into a single interactive view for analysis.

**d) Story :** A story presents insights in a sequence of views, helping explain data findings step-by-step.

**Question 3 :** What is the difference between Dimensions and Measures in Tableau? Provide examples of each.

Answer :

Dimensions	Measures
Qualitative data	Quantitative data
Used for grouping	Used for calculations
Discrete	Continuous

**Examples:**

- Dimensions: Country, Product, Segment
- Measures: Sales, Profit, Units Sold

**Question 4 :** Define and explain the purpose of Filters, Parameters, and Sets in Tableau.

Answer :

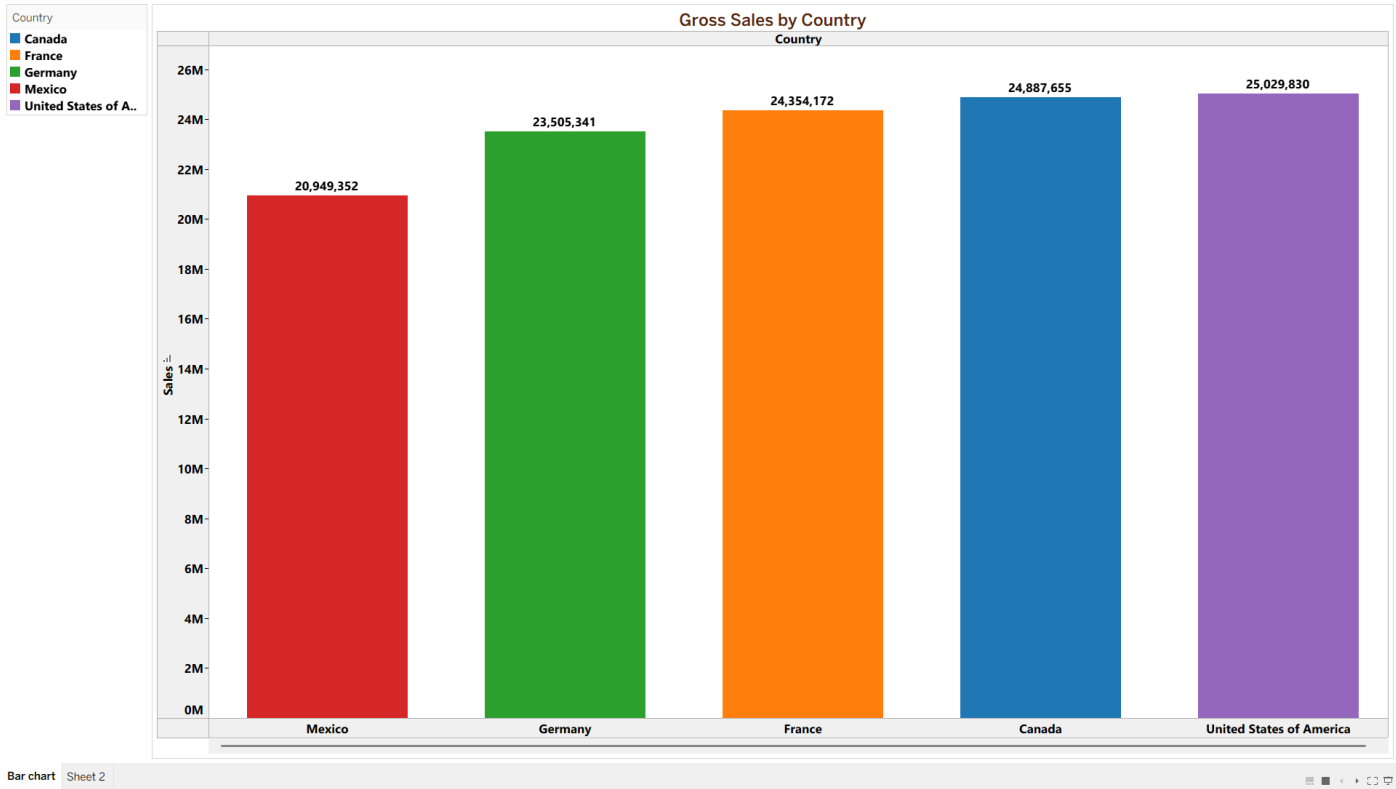
**Filters:** Used to restrict the data shown in a visualization (e.g., filter by Country or Year).

**Parameters:** Allow user input to dynamically change calculations or views (e.g., switching between Units Sold and Profit).

**Sets:** Used to group data based on conditions (e.g., Top 10 Products by Sales).

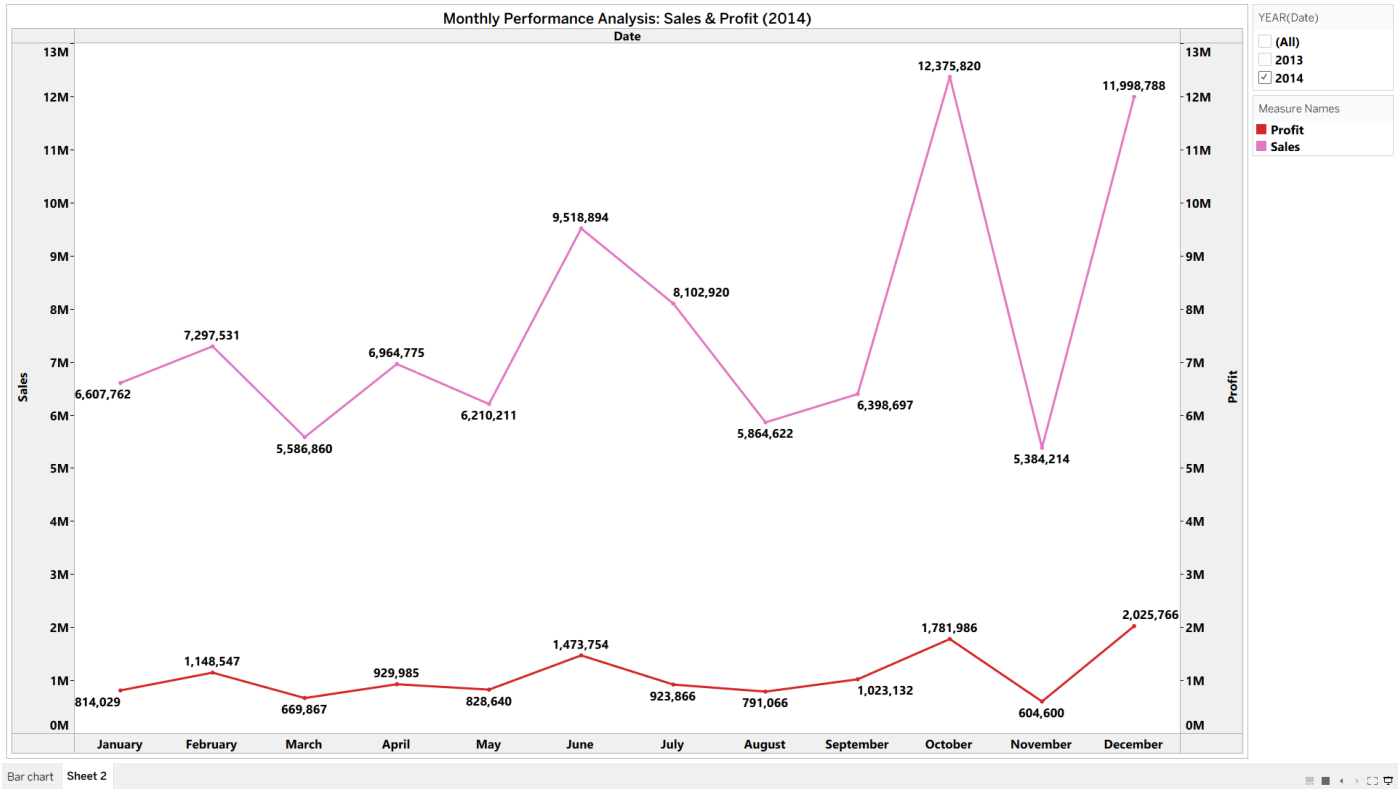
**Question 5 :** Create a bar chart showing Gross Sales by Country. • Sort the countries in descending order of sales • Highlight or annotate the bar that represents the maximum and minimum Gross Sales. • Add data labels and format the chart for presentation.

Answer :



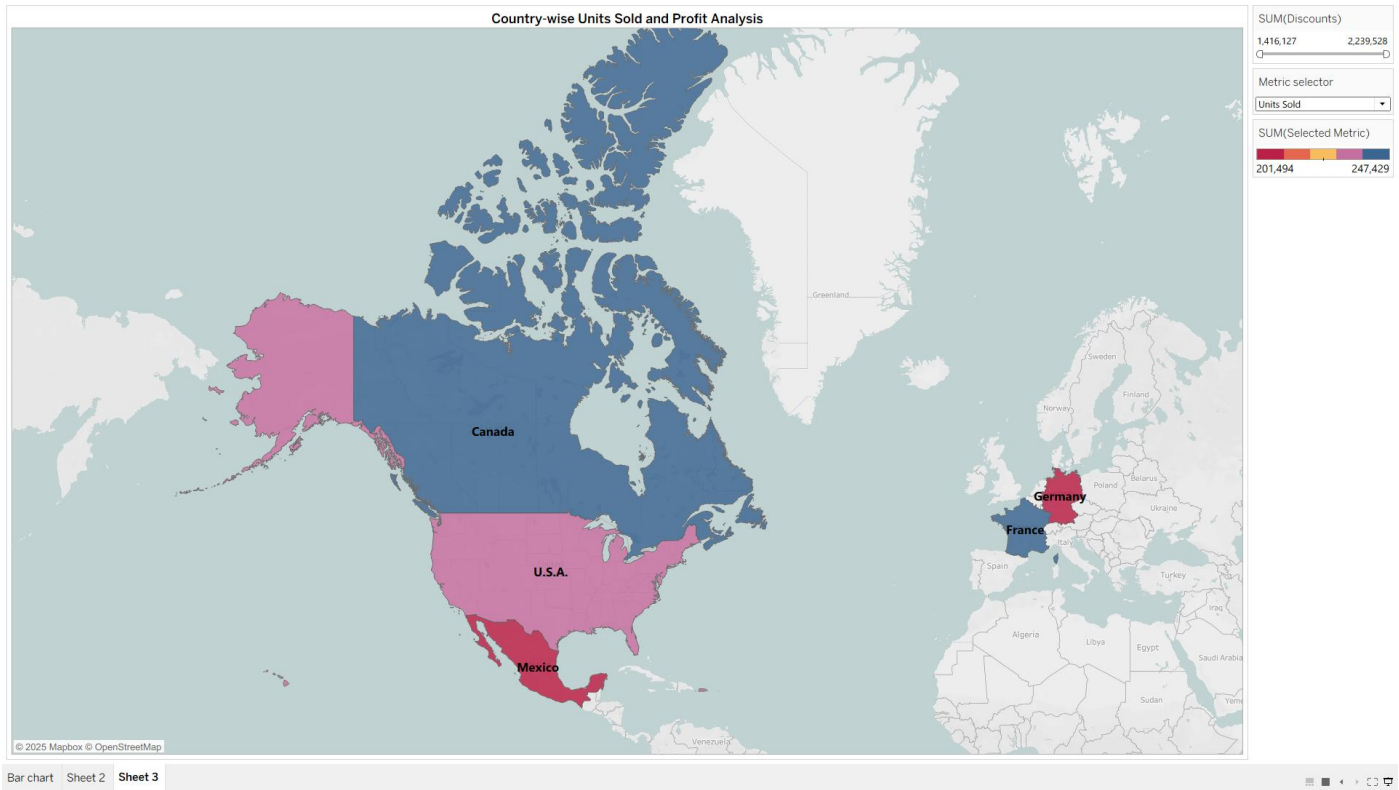
**Question 6 :** Using Tableau, create a dual-axis chart that displays: ● Monthly Sales as bars ● Monthly Profit as a line ● Filter the data to include only records from the year 2014 ● Ensure both axes are synchronized and properly labeled ● Add an appropriate chart title, and format the chart for clear visual presentation ● Paste a screenshot of the final chart in your submission

Answer :



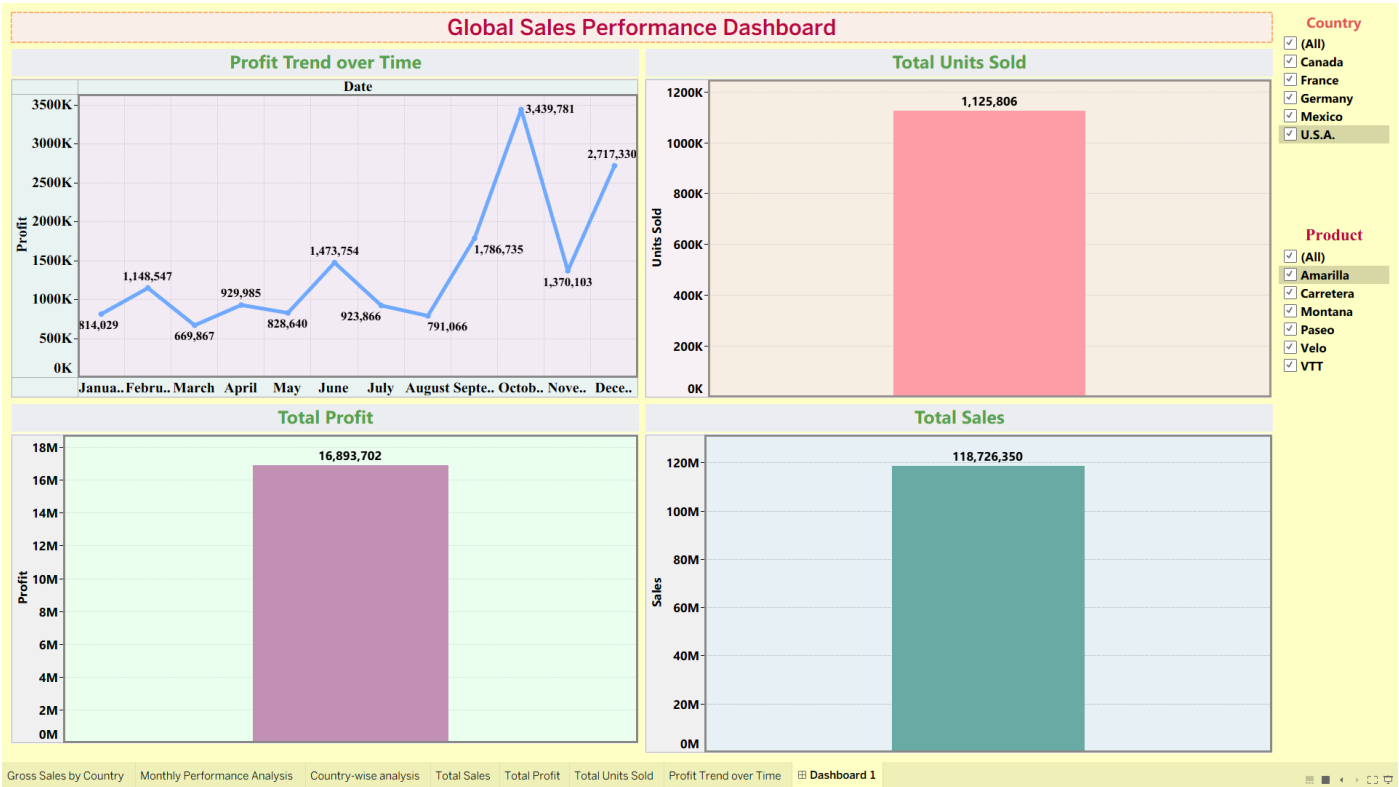
**Question 7 :** Create a filled map showing total Units Sold by Country. ● Add a parameter to allow users to switch between Units Sold and Profit. ● Use the Discount Band as a filter in your visualization.

Answer :



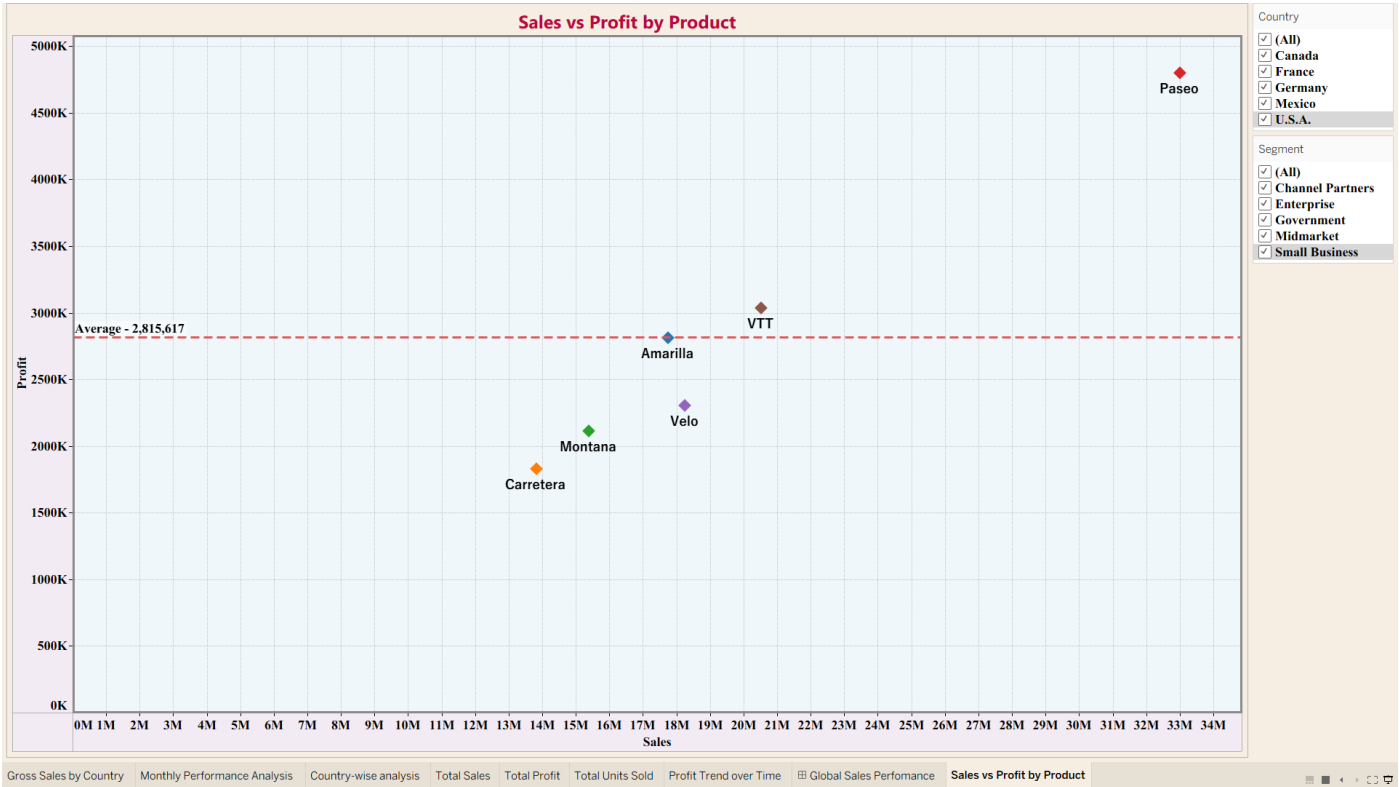
**Question 8 :** Create a dashboard that includes: ● KPI tiles for Total Sales, Total Profit, and Total Units Sold ● A line chart for Profit trend over time ● Filters for Product and Country.

Answer :



**Question 9 :** Your goal is to identify products that generate low profit despite high sales volume. ● Use scatter plot or highlight table to identify such products. ● Add filters for Country and Segment. ● Write two business insights based on your chart.

Answer :

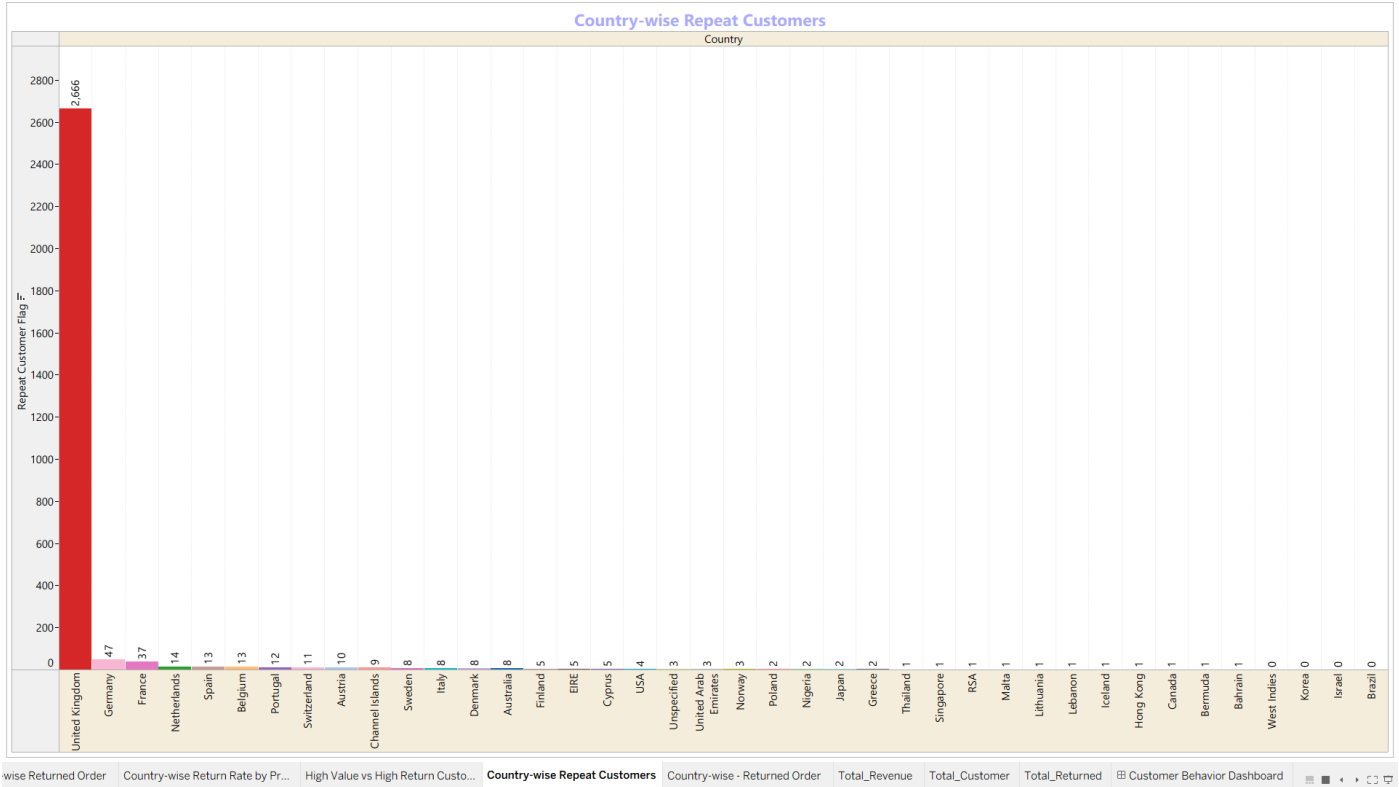


Business Insights:

- 1. The reference line indicates the average profit level. Products such as **Carretera**, **Montana**, and **Velo** fall below the average profit line despite generating substantial sales. This suggests that these products may be impacted by high costs, heavy discounting, or inefficient pricing strategies.
- 2. Products like **Paseo** and **VTT** show both **high sales and high profit**, positioning them as top-performing products. These products contribute significantly to overall profitability and should be prioritized for marketing and expansion strategies.
- 3. The use of **Country and Segment filters** enables deeper analysis, helping identify whether profitability issues are driven by specific regions or customer segments. This allows targeted corrective actions rather than applying generalized strategies.

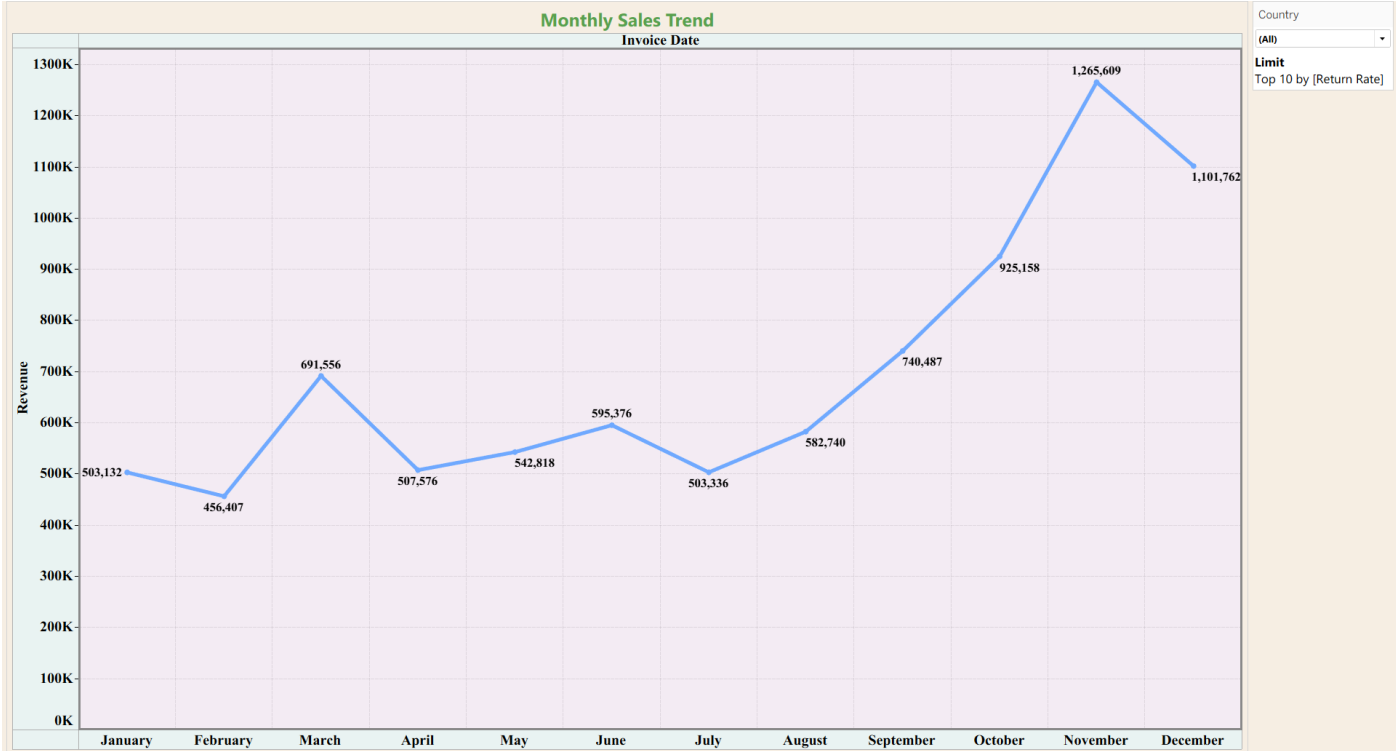
Question 10 : Scenario-Based – Customer Behavior & Retention Strategy

Answer:

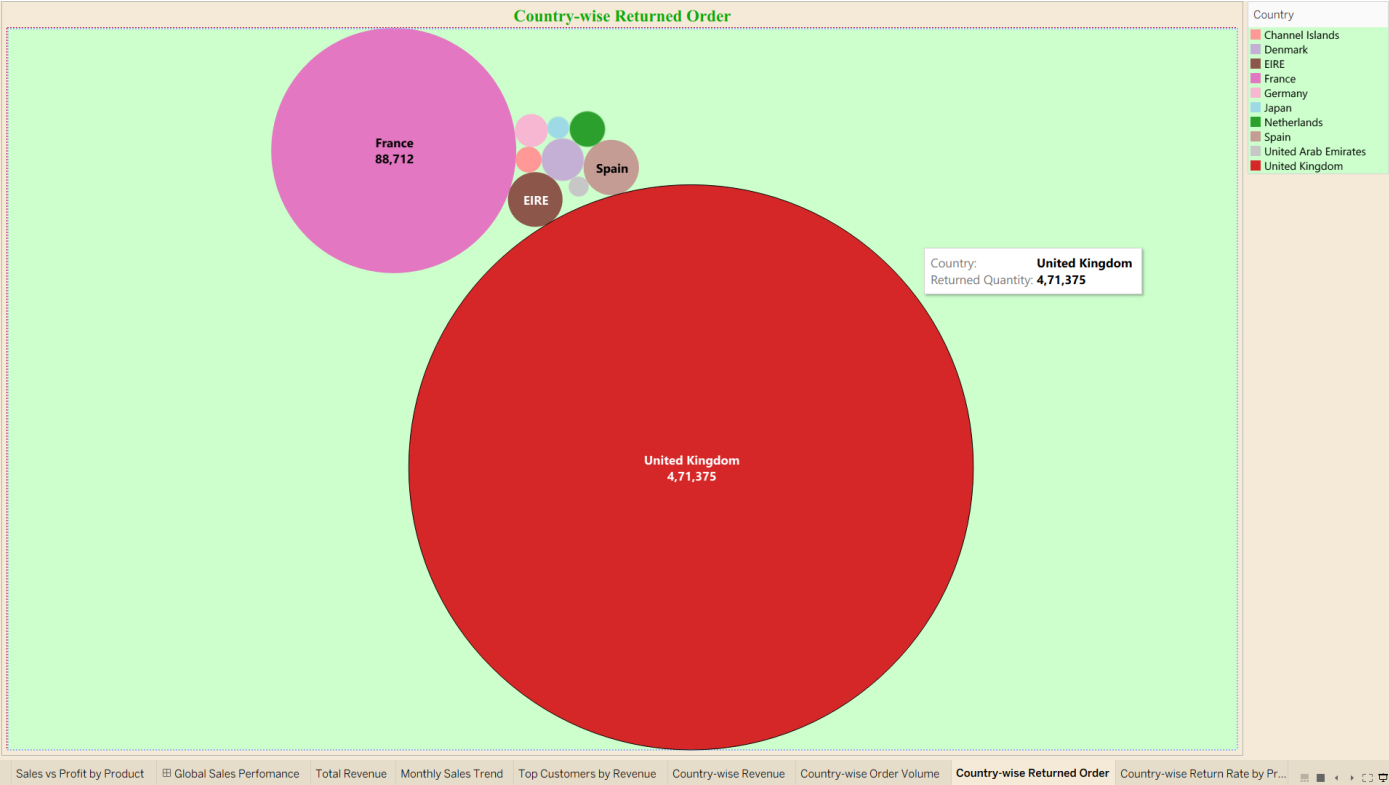
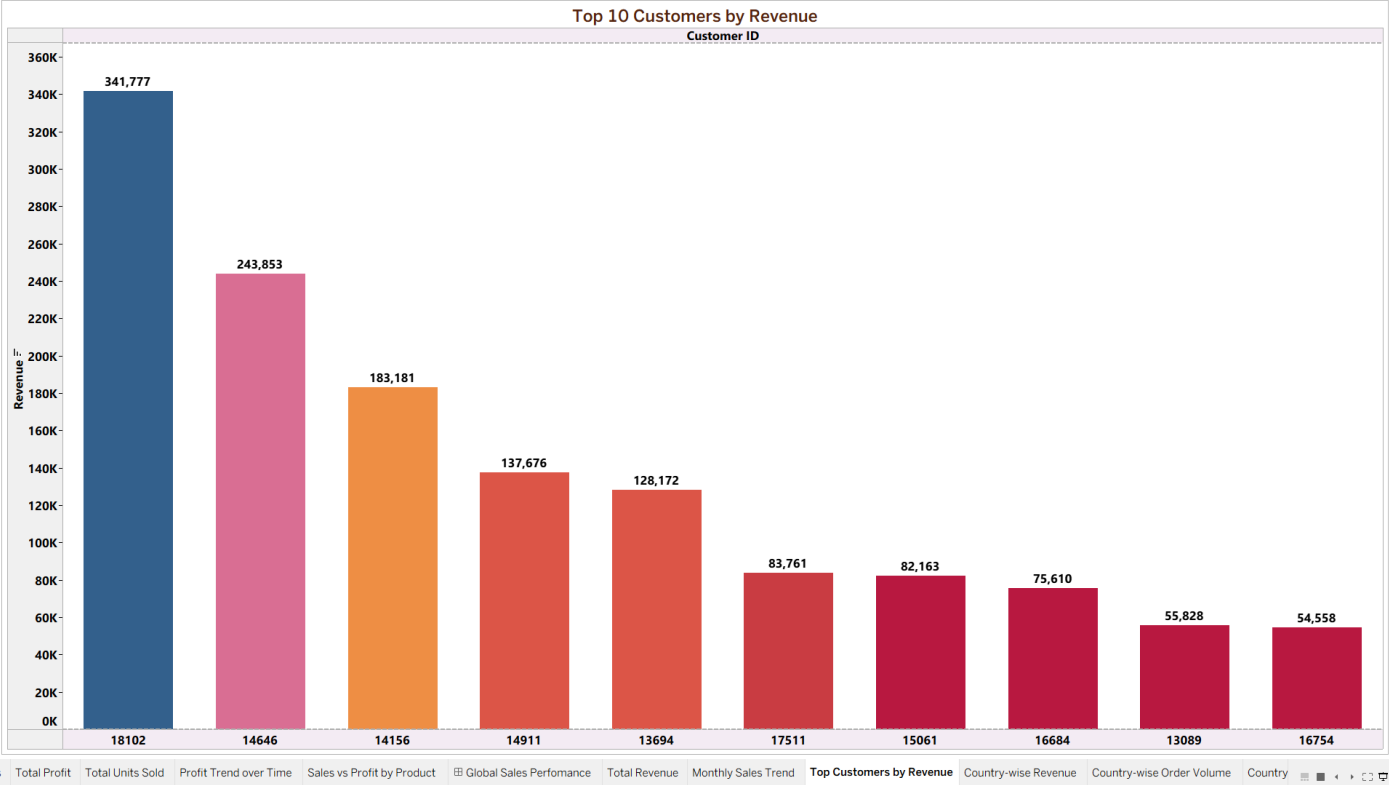


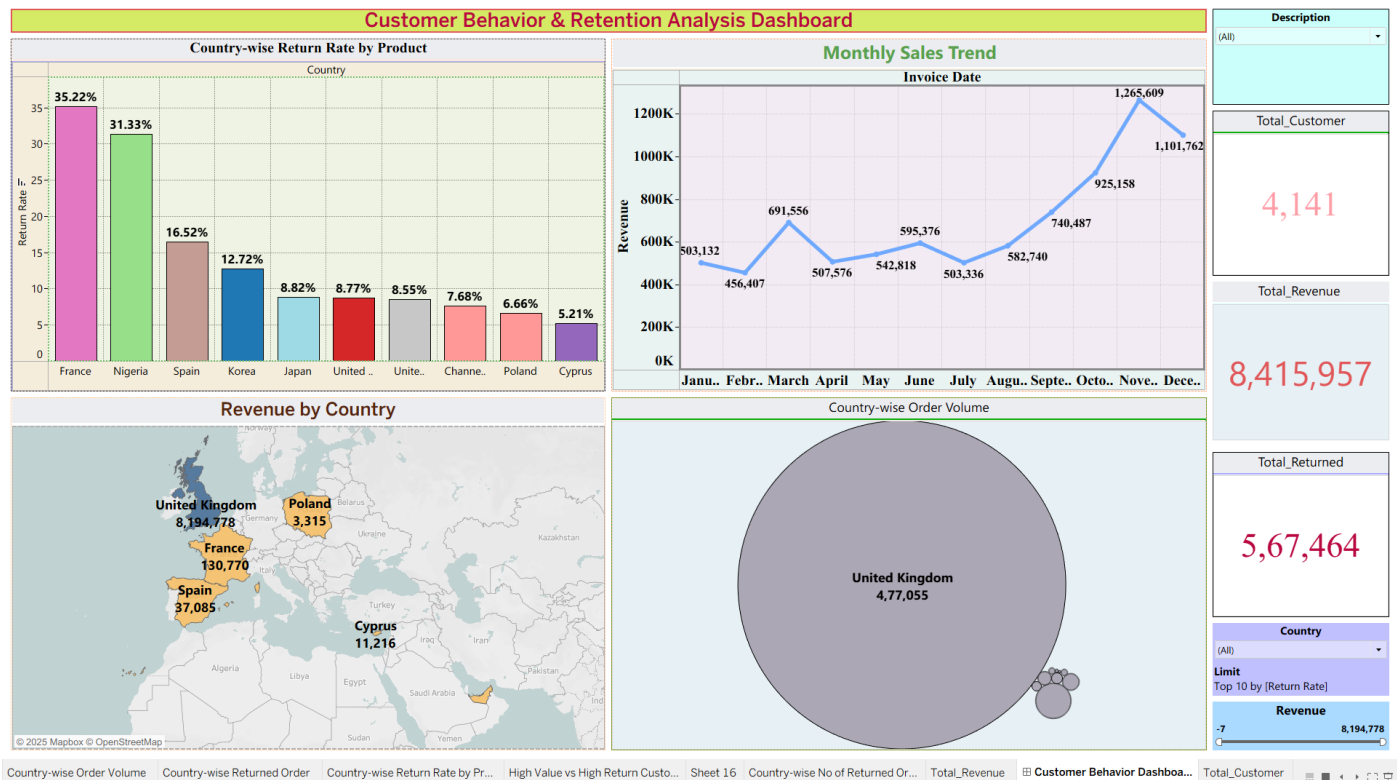


Total Profit | Total Units Sold | Profit Trend over Time | Sales vs Profit by Product | Global Sales Performance | Total Revenue | Monthly Sales Trend | Top Customers by Revenue | **Country-wise Revenue** | Country-wise Order Volume | Country



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## Key Insights:

- The United Kingdom has the highest order volume and repeat customers, indicating strong customer loyalty.
- Certain countries such as France and Nigeria show higher return rates, highlighting potential issues with product quality or customer expectations.
- Monthly sales trend shows strong seasonality, with peak sales observed in November and December, indicating high demand during festive periods.
- A small segment of customers generates high revenue but also has higher return rates, suggesting the need for targeted return reduction strategies.

## Recommendations :

- Implement loyalty programs for repeat and high-value customers
- Investigate products with high return rates for quality or expectation issues
- Focus marketing efforts on high-performing regions
- Use seasonal insights for inventory and demand planning