Online Retail Analysis

TATA VISUALIZATION EMPOWERMENT INTERNSHIP

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Objective

- To analyze Online retail sales data using **GOOGLE SHEETS AND TABLEAU**

- Identify key sales trends and customer purchase patterns

- Provide data-driven insights for better decision making

Data Source

▶ The dataset was given by **TATA VISUALIZATION EMPOWERMENT INTERNSHIP** program

▶ Used for performing sales trend analysis , customer segmentation , and profitability insights.

Problem Statement

▶ Understand customer purchasing behavior

▶ Identify sales performance across products and regions

▶ Detect areas of revenue growth and improvement opportunities
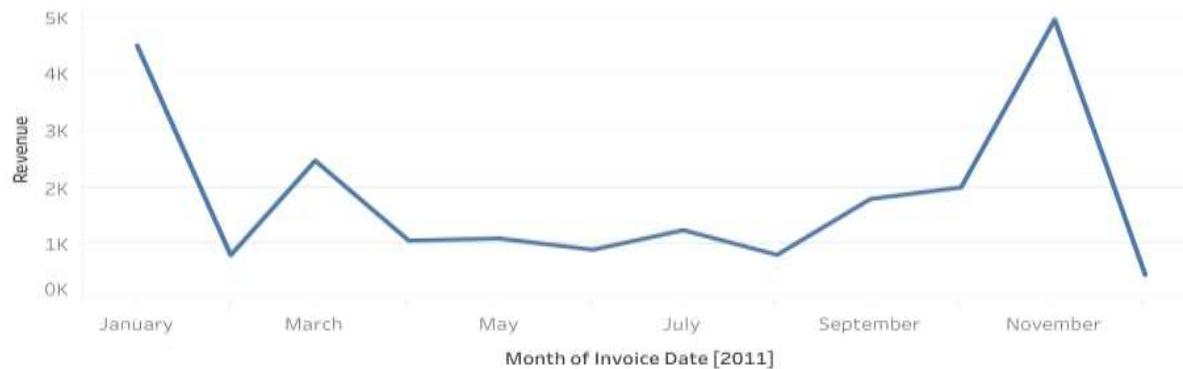
Methodology

- Used data sampling method due to more than 5,00,000 rows

- Cleaned the extra whitespaces , duplicate coloumns

- Corrected negative values in quantity coloumn using conditional formatting

- Filled missing customer ID cells with '***Unknown***'
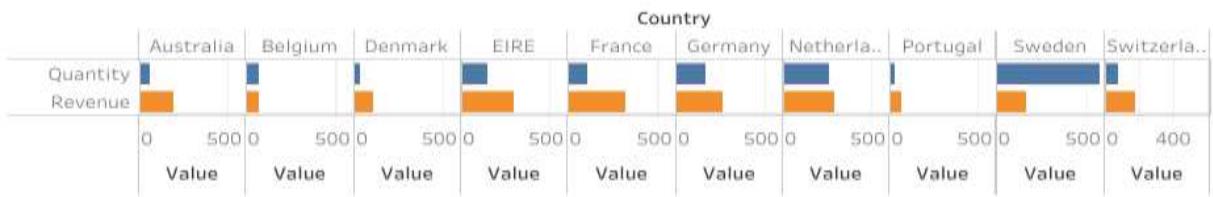
Analysis Dashboard
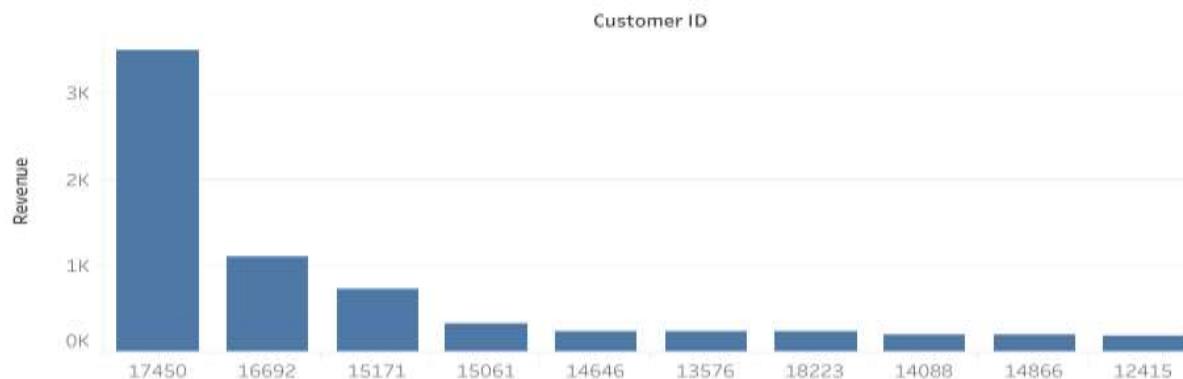
Key Insights

📈 Monthly Revenue Trend: November 2011 recorded the highest revenue during the year.

🌍 Revenue by Region: The UK contributed the highest revenue, followed by France.

👤 Top Customer: Customer ID 17450 purchased goods worth more than 3,000 units/revenue.

🎁 Quantity Sold by Country: France recorded the highest product quantities sold.

Recommendations

- ⬈ Leverage Peak Sales Months: Since November has the highest revenue, plan promotions and stock in advance for holiday seasons.

- 🌍 Focus on Key Regions: Strengthen marketing in the UK (top revenue driver) and expand sales strategies in France.

- 👤 Customer Retention: Engage with Customer ID 17450 (loyal/high-value buyer) through personalized offers or loyalty programs.

- 🎁 Inventory Planning: Monitor product demand in France to ensure stock availability and reduce missed sales opportunities.

Conclusion

- The Online Retail dataset provided valuable insights into sales trends, customer behavior, and regional performance.

- Data cleaning ensured accuracy by removing duplicates, correcting negative quantities, and handling missing customer IDs.

- Analysis revealed that November 2011 was the peak sales month, with the UK and France as top revenue contributors.

- Identifying high-value customers and regional demand patterns can guide better marketing, inventory, and business strategies.