

USA Stores Sales Analysis Project Documentation

Project Title:

USA Stores

Objective:

The primary objective of this project is to deliver a comprehensive data analysis and visualization solution that provides insights into the sales and customer behavior of a fictitious U.S.A. The data was originally sourced from Kaggle (**Retail Store Sales: Dirty for Data Cleaning**) and enriched with geographical context (Country, State, Region) to simulate realistic U.S.A. sales operations. The project was developed using Microsoft Excel for initial data exploration, SQL via Visual Studio Code for data cleaning, and Tableau for dashboard visualization.

Sales Dashboard

Purpose:

To present an overview of sales metrics and trends in order to analyze year-over-year performance and identify key business insights.

Key Features:

1. KPI Overview:

- Total Sales, Profit, and Quantity displayed for both the current and previous year.

2. Sales Trends:

- Monthly performance breakdown for each KPI across both years.
- Highlighted months with highest and lowest sales.

3. Product Category Comparison:

- Comparative analysis of product Category performance for both years.
- Includes both Sales and Profit comparisons.

4. Weekly Trends for Sales & Profit:

- Weekly breakdown of sales and profit for the current year.
- Display of average weekly sales and profit.
- Highlighting of weeks performing above and below the average.

Customer Dashboard

Purpose:

To provide actionable insights into customer behavior, segmentation, and engagement. The dashboard serves as a tool for marketing and management teams to improve customer satisfaction and strategize effectively.

Key Features:

1. KPI Overview:

- Total Number of Customers, Total Sales per Customer, and Total Number of Orders for both the current and previous year.

2. Customer Trends:

- Monthly performance of each KPI across both years.
- Months with highest and lowest customer sales are visually emphasized.

3. Customer Distribution by Number of Orders:

- Distribution analysis to understand customer loyalty and engagement based on their ordering behavior.

4. Top Customers by Profit:

- List of top customers generating the highest profits.
- Additional information includes Rank, Number of Orders, Sales, Profit, and Last Order Date.

Design & Interactivity

Dashboard Dynamics:

- Users can select and view data for any specific year.
- Seamless navigation between Sales and Customer dashboards.
- Interactive elements allow users to filter data directly through chart selections.

Data Filters:

- Product Filters: Category, Payment Method.
- Location Filters: Region, State.

Tools Used:

- **Excel:** Initial data exploration and formatting.
- **SQL (via VS Code):** Data cleaning, transformation, and integrity checks.
- **Tableau:** Interactive dashboard creation and data visualization.

Project Outcome:

This project successfully demonstrates the power of integrating multiple tools to deliver a dynamic, interactive, and business-centric sales and customer analytics solution. The resulting dashboards can support informed decision-making, trend analysis, and customer engagement strategies.

GitHub Repository:

The full project, including cleaned datasets, SQL scripts, Tableau workbook, and documentation, is available in the Christos Zogas Github Repositories.