

Project Title: Sales Data Analysis with SQL and Pandas




This project demonstrates a comprehensive sales data analysis using Python libraries like `pandas` and `pandasql` to run SQL queries directly on a CSV file. The analysis covers key business questions and visualizes the results to provide actionable insights.

The entire analysis, including the code, queries, and results, is documented in the attached file.

Summary of Key Analyses & Insights

- **Top 5 Countries by Sales:** A SQL query was used to identify the top-performing countries based on total sales, with the USA leading with over \$3.6 million in sales.
 - **Order Status Overview:** The analysis provides a breakdown of all orders by their current status, such as Shipped, Resolved, and In Process. The majority of orders (2617) have a 'Shipped' status.
 - **Average Sales per Product Line:** The average sales were calculated for each product line, revealing that Classic Cars have the highest average sales at over \$4,000 per order.
 - **'Small' Deal Size Customers:** The file includes a specific query to filter for customers in the USA with a 'Small' deal size, sorted by sales amount.
 - **Bar Chart Visualization:** A bar chart was created to visually represent the total sales for each product line, clearly showing that 'Classic Cars' generate the most sales at over \$3.9 million.
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Tools Used:

- **Pandas** : For data loading and manipulation.
- **Pandasql** : For executing SQL queries on the DataFrame.
- **Matplotlib** : For creating visualizations.