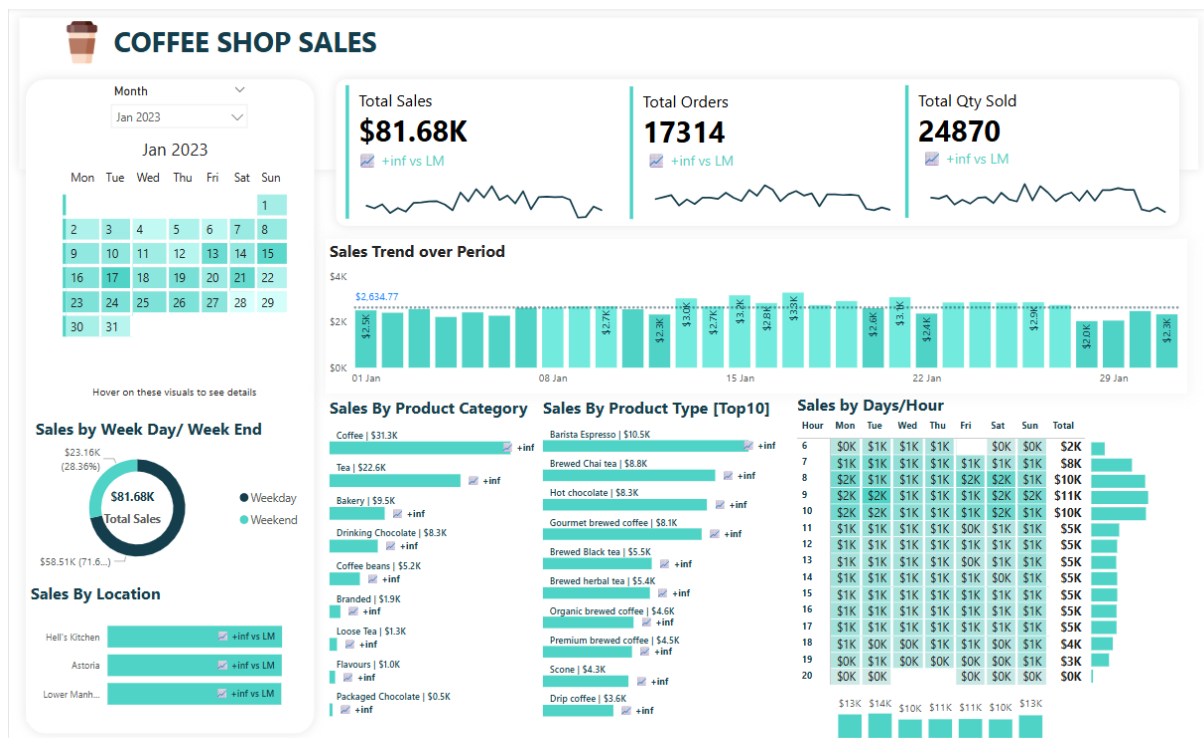


Coffee Shop Sales Analysis



- **Project Overview**

Developed a Power BI project focused on analyzing sales data for a coffee shop. The project aims to construct a comprehensive dashboard that provides actionable insights into various aspects of sales performance, including total sales, order analysis, sales trends by time and location, and product performance.

- **Problem Statement**

The coffee shop is struggling to understand its sales performance. The specific areas of concern include:

- 🔍 Total sales analysis
- 🔍 Total order analysis
- 🔍 Total quantity sold analysis
- 🔍 Sales analysis by weekdays and weekends
- 🔍 Sales analysis by store location
- 🔍 Daily sales with average line
- 🔍 Sales analysis by product category
- 🔍 Top 10 products by sales
- 🔍 Sales analysis by days and hours
- 🔍 The goal is to analyze these aspects to identify key drivers of sales and areas for improvement.

• Tools Used

- 🔍 Power BI

• Data Cleaning and Analysis

- 🔍 **Changing Data Types:** Ensured that numeric columns (e.g., sales amount, quantity sold, order ID) were set to appropriate numeric data types.
- 🔍 **Formatting Cells:** Ensured proper formatting for columns, such as setting number formats with appropriate decimal places.
- 🔍 **Categorizing Products and Locations:** Ensured consistent labeling for products and locations.
- 🔍 **Standardizing Date Formats:** Used functions to convert date columns to a consistent format.

- **Power BI**

🔗 **Data Modeling:** Created a date table and connected it with the transaction table using the date column as the common key. This allows for time-based analysis and filtering in the dashboard.

🔗 **Conditional Formatting:** Used conditional formatting to highlight important data points and trends in the visualizations.

🔗 **Data Validation:** Implemented data validation rules to ensure data quality and accuracy.

🔗 **Data Transformation:** Utilized Power Query Editor to perform data cleaning operations such as removing duplicates, filtering rows, and transforming data types.

- **Visualization Used in Power BI**

🔗 **Total Sales Analysis:** Card and line chart to visualize total sales over different time periods.

🔗 **Total Order Analysis:** Card and line chart to show the number of orders over different time periods.

🔗 **Total Quantity Sold Analysis:** Card and line chart to display the total quantity of products sold.

🔗 **Sales Analysis by Weekdays and Weekends:** pie chart to compare sales on weekdays versus weekends.

🔗 **Sales Analysis by Store Location:** Bar chart to show sales performance by location.

🔗 **Daily Sales with Average Line:** Column chart with an average line to show daily sales trends.

🔗 **Sales Analysis by Product Category:** Bar chart to display sales distribution across different product categories.

🔗 **Top 10 Products by Sales:** Bar charts to highlight the top 10 products based on sales.

🔗 **Sales Analysis by Days and Hours:** Matrix chart to analyze sales performance across different days and hours.

🔗 **Calendar map for monthly and daywise:** Matrix chart used to filter analysis based on month and day.

🔗 **Tooltip in calendar map and days & hours chart** Implemented tooltip for the calendar map and matrix chart to display detailed information when hovering over each day and hour for analysis.

- **Recommendations**

Based on the analysis, the following insights and recommendations were derived:

🔍 **Optimize Product Mix:** Focus on high-performing products and consider phasing out or improving low-performing products.

🔍 **Enhance Location Performance:** Identify locations with lower sales and analyze factors contributing to underperformance. Implement targeted strategies to boost sales in these locations.

🔍 **Weekday vs. Weekend Promotions:** Leverage sales patterns to design promotions and marketing campaigns tailored for weekdays and weekends.

🔍 **Time-Based Marketing:** Utilize insights from daily and hourly sales analysis to optimize opening hours and schedule targeted promotions.

🔍 **Customer Preferences:** Use product sales data to understand customer preferences and tailor offerings accordingly.

- **Conclusion**

The Coffee Shop Sales Analysis dashboard provides valuable insights into the sales performance of the coffee shop. By understanding key metrics and trends, the company can make data-driven decisions to enhance sales strategies, improve product offerings, and optimize overall performance.