**Coffee Sales Dashboard Portfolio Project**

**Introduction**

The project purpose is to enhance the coffee shop's analytical capabilities by offering insights into customer behaviour and sales patterns. It involves cleaning and preparing a coffee sales dataset along with customer and product data to create a comprehensive order table using Excel formulas.

**Objectives**

The objective is to analyze the data through various pivot tables and charts, culminating in an interactive Excel dashboard that provides valuable insights into coffee sales and customer behaviour. This will support optimized inventory management and improved decision-making in sales.

**Task**

1. Data collection, cleaning, and preparation
2. Create an order table using Excel formulas such as VLOOKUP, INDEX, and IF.
3. Analyse sales patterns by Coffee Type and by Country with PivotTables.
4. Determine high-performing Coffee Type Over Time.
5. Develop compelling reports and visualization
6. Create an Interactive dashboard

**Data & Resource Used**

**Dataset**

1. [Kaggle]{[https://www.kaggle.com/datasets?fileType=csv}](https://www.kaggle.com/datasets?fileType=csv%7D)
2. The dataset can be found on [Mo Chen]{[https://www.youtube.com/@mo-chen}](https://www.youtube.com/@mo-chen%7D) YouTube Channel. I am grateful for his guidance on this project.

**Tool**

Microsoft Excel

**Data Cleaning and Preparation**

**1. Load the Datasets**

Checking NULL values, blanks and Errors.

Removing duplicates, and irrelevant columns.

Ensure all columns are correctly formatted and that there are no missing values.

**2. Create the Order Table**

Combine data from the product and customer datasets using VLOOKUP, INDEX, and IF formulas.

Ensure the order table includes columns for customer name, email, country, coffee type, roast type, size, unit price, sales, coffee type name, roast type name, and loyalty card status.

**3. Order Table Creation Using Formulas**

VLOOKUP, INDEX, and IF Statements

For Formula Refer: Formula Sheet in Dataset

**Data Analysis and Visualization**

By Creating Pivot Table along with suitable charts we can identify trends in the dataset focusing on relationship between sales and other factors such as date, customers, country.

1. Sales by Coffee Type
2. Top 5 Customers
3. Sales by Country
4. Total Sales Over Time

**Design Interactive Dashboard**

**1. Create a New Worksheet for the Dashboard:**

Insert all the created charts into the new worksheet.

Arrange the charts in a logical and visually appealing layout.

**2. Add Slicers:**

Add slicers for coffee type, roast type, size, and loyalty card status.

Ensure all charts are connected to the slicers for interactivity.

**Key Findings**

• **Sales by Coffee Type:** Visual representation of total sales for each coffee type, identifying the most popular types.

• **Top 5 Customers:** Analysis of the top 5 customers by sales, providing insights into high-value customers.

• **Sales by Country:** Geographical distribution of sales, highlighting key markets.

• **Total Sales Over Time:** Trends in total sales over time, with the ability to filter by roast type, size, and loyalty card status.

**Conclusion**

The Coffee Sales Dashboard provides a comprehensive analysis of sales data, offering valuable insights into customer behaviour and sales performance. This project reveals key insights for optimizing your coffee shop's operations.By leveraging these findings, you can enhance customer experiences, and boost overall sales efficiency for a thriving coffee shop venture. The interactive features of the dashboard, including slicers, enhance the ability to explore the data and derive meaningful conclusions.

**Recommended Analysis**

• Expand the analysis to include additional metrics such as average order value and repeat purchase rate.

• Incorporate more advanced visualization techniques to further enhance the dashboard.

• Explore predictive analytics to forecast future sales trends.

**Reflection**

This project provided practical experience in data cleaning, preparation, and analysis using Excel. The creation of an interactive dashboard improved the ability to communicate insights effectively and demonstrated the power of Excel as a tool for data analysis and visualization.