# Coffee Shop Sales Dashboard - Documentation

## 1. Introduction

This document provides detailed documentation of the steps taken to analyze coffee shop sales data, build interactive dashboards in Excel, and extract insights and recommendations. The analysis was based on transactional sales data containing information about customers, orders, coffee types, roast types, sizes, loyalty cards, countries, and sales values.

## 2. Data Preparation

The raw data was stored in the sheet 'Coffeeshopdata' and imported into power query and then cleaned into the 'Working Sheet'. The following steps were taken to prepare the dataset for analysis:

- Created calculated fields such as 'Sales' (Quantity × Unit Price) and 'Year' (extracted from Order Date).  
- Standardized categorical columns such as Coffee Type, Roast Type, and Loyalty Card.  
- Verified data integrity by checking for missing or duplicate entries.  
- Ensured consistent units for Size (e.g., 0.2, 0.5, 1.0,2.5) and standardized roast type names (Light, Medium, Dark).

## 3. Analysis Steps

The following analyses were carried out using Pivot Tables and Charts in Excel:

1. Total Sales by Coffee Type (Trend):  
 - Pivot Table created with Coffee Type as rows, Year as columns, and Sum of Sales as values.  
 - A line chart was used to visualize yearly trends in sales for each coffee type.  
  
2. Top 10 Customers by Contribution:  
 - Pivot Table grouped by Customer Name with Sum of Sales.  
 - Sorted descending and filtered to show only the top 10 customers with 6 customers in 10th place.  
 - A horizontal bar chart was used for easy comparison.  
  
3. Total Sales by Country:  
 - Pivot Table created with Country as rows and Sum of Sales as values.  
 - A Column chart was used to visualize the sales distribution geographically.  
  
4. Total Quantity Ordered by Coffee Type:  
 - Pivot Table with Coffee Type as rows and Sum of Quantity as values.  
 - A column chart was used to visualize popularity by quantity ordered.  
  
5. Filters and Slicers:  
 - Added slicers for Roast Type, Loyalty Card, Year, and Size.  
 - Linked slicers to all Pivot Tables to ensure interactive filtering across the dashboard.

## 4. Key Insights

- Espresso and Arabica appear to be the top-selling coffee types in terms of total sales.  
- The top 10 customers contribute a significant portion of overall revenue, highlighting the importance of customer retention strategies.  
- The United States generates the highest sales among countries, followed by the UK and Ireland.  
- Medium roast coffee is the most popular across customers, with higher sales compared to light and dark roasts.  
- Larger coffee sizes (2.5 kg) show increasing sales trends, indicating higher preference among bulk buyers.

## 5. Recommendations

- Focus marketing campaigns on the most popular coffee types (Espresso, Arabica) to maximize revenue.  
- Strengthen loyalty programs to retain top customers, as they contribute a large share of sales.  
- Expand product availability and promotions in high-performing countries like the US .  
- Promote underperforming roasts or sizes with targeted discounts or bundle offers to boost demand.  
- Continue monitoring sales trends annually to adapt strategies and meet changing customer preferences.

## 6. Conclusion

The Excel dashboard built for the coffee shop provides a comprehensive overview of sales performance by coffee type, customer, country, and order size. The interactive slicers enable dynamic exploration of the data, making it a powerful tool for business decision-making. The insights derived support actionable recommendations to increase sales, improve customer loyalty, and expand market reach.