**Coffee Shop Sales - My Approach**

**Category**: Sales  
**Tools Used**: Tableau, SQL, Google Sheets

**Objective:**

This project analyses sales trends, customer purchasing behaviour, and product performance across three fictitious NYC coffee shop locations. The goal is to uncover actionable insights that optimise inventory, refine marketing strategies, and improve overall revenue generation for the business.

**Key Questions Answered:**

* What are the overall sales trends (daily, weekly, monthly)?
* Which days of the week have the highest sales, and why?
* What are the top-performing products and product categories?
* Which store locations generate the highest revenue?
* What are customer preferences in terms of product types and product sizes?

**Data Source:**

The dataset, sourced from the **Maven Roasters Data**, is a comprehensive collection of transactional records. Available on Kaggle.

**Approach:**

**1. Data Cleaning (Using Google Sheets)**

* Imported the dataset into Google Sheets for an initial review.
* Split the product\_detail column into product\_item and product\_size for granularity.
* Extracted additional columns from transaction\_date (e.g., Month, Day of the Week, and Hour) to enable time-based trend analysis.
* Created a sales column by multiplying unit\_price and transaction\_quantity to calculate total revenue.

**2. Data Analysis (Using SQL)**

* **Sales Trends**:
  + Analysed total and average sales by month and day of the week.
  + Calculated month-over-month growth percentages to track trends.
* **Store Performance**:
  + Evaluated sales and transaction patterns for each store location.
  + Analysed sales by store and product category combinations.
* **Product Insights**:
  + Identified top-selling products and underperforming items.
  + Examined sales trends by product size and product detail.
* **Time-Based Patterns**:
  + Analysed hourly sales trends and combined day and hour data to identify peak periods.
  + Highlighted high-value transactions (e.g., sales exceeding £50).

**3. Data Visualisations (Using Tableau) -** Created interactive dashboards and charts to visualise key insights:

* **Key Performance Indicators (KPIs)**: Total Sales, Total Transactions, and Total Customers.
* **Trends Over Time**:
  + Monthly sales trends displayed through line and bar charts.
  + Area chart showing total transactions over time.
* **Product and Category Insights**:
  + Horizontal bar chart comparing product categories by total quantity sold, with filters for deeper exploration.
  + Heatmap to identify peak sales periods by hour and day of the week.
* **Store-Specific Insights**:
  + Used dynamic filters to allow users to explore sales trends, popular products, and customer preferences for each location.

**Key Findings:**

1. Overall Trends

* Sales show an **upward trend** over time, with weekends recording significantly lower sales compared to weekdays.
* The **morning rush (8 am–10 am)** is the busiest period, particularly on **Monday, Thursday, and Friday**.

2. Product Insights

* **Top Product Categories**:
  + Coffee (39%), Tea (28%), and Bakery items (12%) dominate sales.
* **Popular Coffee Flavours**:
  + Ethiopian and Brazilian coffees are top-sellers, with **Jamaican Coffee River** generating the highest revenue.
* **Low-Performing Items**:
  + Espresso shots and **Ouro Brasileiro shots** underperform.
  + Packaged chocolates like **Dark Chocolate** generate fewer sales.

3. Location-Specific Insights

* **Astrovia**:
  + Total Sales: £232,244
  + Peak sales during the **morning rush (8 am–10 am)** on Monday, Wednesday, Thursday, and Friday.
  + Bestsellers: Colombian Medium Roast Coffee, Earl Grey Tea, and Chocolate Croissants.
* **Hell's Kitchen**:
  + Total Sales: £236,511
  + Peak sales during **8 am–10 am on Tuesday and Friday**.
  + Bestsellers: Brazilian Coffee, Morning Sunrise Chai, and Chocolate Croissants.
* **Lower Manhattan**:
  + Total Sales: £230,057
  + Peak sales during **8 am–10 am on Mondays**.
  + Bestsellers: Ethiopian Coffee, Peppermint Tea, and Chocolate Croissants.

**Recommendations:**

1. Optimise Operations for Peak Hours

* Focus staffing and inventory during the **morning rush (8 am–10 am)**, especially on **Monday, Thursday, and Friday**, to handle high demand efficiently.

2. Promote or Remove Low-Performing Items

* Launch targeted promotions for **espresso shots**, **dark chocolate**, and other low-demand items to improve sales. Alternatively, consider removing poorly performing items.

3. Customise Offerings for Each Location

* Tailor inventory and marketing based on location-specific preferences:
  + **Astrovia**: Emphasise Colombian Medium Roast and Earl Grey Tea.
  + **Hell's Kitchen**: Stock more Brazilian Coffee and Morning Sunrise Chai.
  + **Lower Manhattan**: Prioritise Ethiopian Coffee and Peppermint Tea.

4. Boost Weekend Sales

* Introduce **weekend-specific promotions** such as bundle offers (e.g., coffee + croissant) or double loyalty points to increase foot traffic on Saturdays and Sundays.

5. Capitalise on Bestsellers

* Enhance marketing for **Jamaican Coffee River**, **Morning Sunrise Chai**, and **Chili Mayan Chocolate** to maximise revenue from popular products.

**Conclusion:**

This project highlights critical sales trends, customer preferences, and store-specific patterns. By implementing the recommendations, the coffee shop can optimise operations, enhance customer satisfaction, and drive long-term growth across all three NYC locations.