

Coffee Shop Analysis

1-Objective:

The objective of the Coffee Shop Sales Analysis is to gain insights into the sales performance of a coffee shop and identify factors that influence transaction trends and total revenue.

2-Dataset:

The dataset used for this analysis is named "Coffee Shop Sales." It contains information about sales transactions, including details such as transaction date, time, quantity, store ID, product ID, unit price, product category, product type, and product details.

	A	B	C	D	E	F	G	H	I	J	K
1	transaction_id	transaction_date	transaction_time	transaction_id	store_id	store_location	product_id	unit_price	product_category	product_type	product_detail
2	1	1/1/2023	7:06:11	2	5	Lower Manhattan	32	3	Coffee	Gourmet brewed coffee	Ethiopia Rg
3	2	1/1/2023	7:08:56	2	5	Lower Manhattan	57	3.1	Tea	Brewed Chai tea	Spicy Eye Opener Chai Lg
4	3	1/1/2023	7:14:04	2	5	Lower Manhattan	59	4.5	Drinking Chocol	Hot chocolate	Dark chocolate Lg
5	4	1/1/2023	7:20:24	1	5	Lower Manhattan	22	2	Coffee	Drip coffee	Our Old Time Diner Blend Sm
6	5	1/1/2023	7:22:41	2	5	Lower Manhattan	57	3.1	Tea	Brewed Chai tea	Spicy Eye Opener Chai Lg
7	6	1/1/2023	7:22:41	1	5	Lower Manhattan	77	3	Bakery	Scone	Oatmeal Scone
8	7	1/1/2023	7:25:49	1	5	Lower Manhattan	22	2	Coffee	Drip coffee	Our Old Time Diner Blend Sm
9	8	1/1/2023	7:33:34	2	5	Lower Manhattan	28	2	Coffee	Gourmet brewed coffee	Columbian Medium Roast Sm
10	9	1/1/2023	7:39:13	1	5	Lower Manhattan	39	4.25	Coffee	Barista Espresso	Latte Rg
11	10	1/1/2023	7:39:34	2	5	Lower Manhattan	58	3.5	Drinking Chocol	Hot chocolate	Dark chocolate Rg
12	11	1/1/2023	7:43:05	1	5	Lower Manhattan	56	2.55	Tea	Brewed Chai tea	Spicy Eye Opener Chai Rg

3-Steps:

1.Data Collection: - The dataset was obtained from a reliable source, ensuring its accuracy and reliability.

2.Data Preprocessing:

- Missing values were handled by either imputation or removal, depending on the context and impact on the analysis.
- Data types were checked and converted as necessary to ensure consistency and compatibility for analysis.
- Duplicates, if any, were identified and removed to maintain data integrity.

3.Exploratory Data Analysis (EDA):

- Exploratory data analysis was conducted to gain insights into the dataset.

- Descriptive statistics, such as mean, median, and standard deviation, were calculated to understand the central tendency of numerical features.

- Visualization techniques, including histograms, bar plots, and line plots, were used to visualize the distribution and relationships among variables.

4.Key Questions and Analysis:

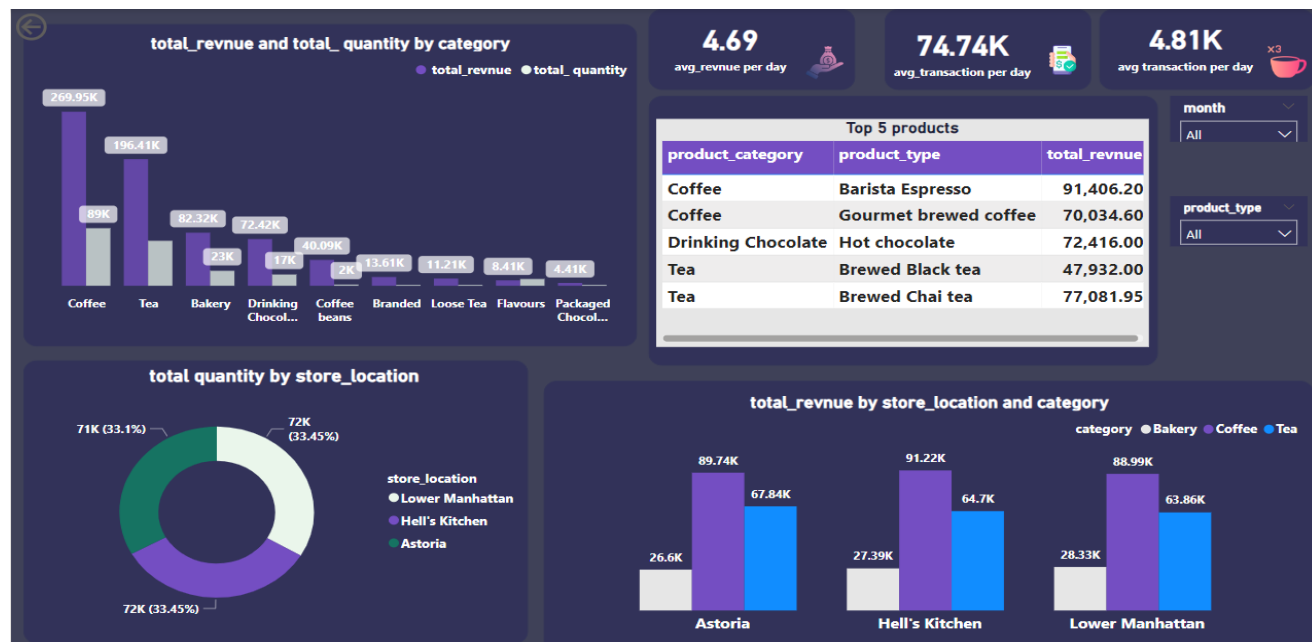
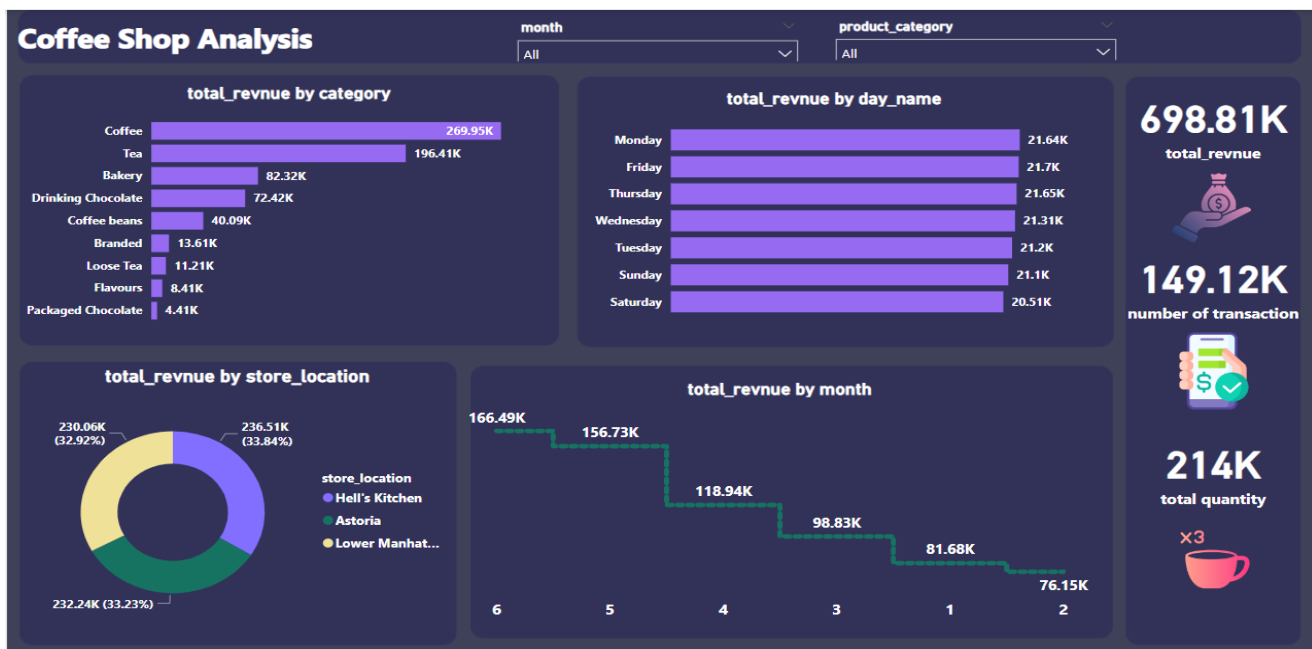
- Several key questions were formulated based on the objectives of the analysis:

- What is the total revenue for all product categories?

- What is the total number of transactions over a specific period?

- Which are the top five best-selling products?

5.Results:



- The total revenue for each product category was calculated and summarized.

- The total number of transactions over the specified period was determined to understand customer activity.

- The top five best-selling products were identified, providing insights into popular products among customers.