Project:
RFM-Customer-Segmentation-Analysis

Purpose and Context
During my continuous learning at ReDI School, we introduced the RFM model to segment customers based on their behavior characteristics. This project was key because it allowed me to expand my knowledge beyond clustering beyond the demographic factors.

Objective:
The primary objective of this RFM (Recency, Frequency, Monetary) analysis is to understand and segment customer purchase behavior. The insights derived will empower the marketing team to refine their targeting strategies for more effective and personalized marketing campaigns.

Goal:
Deliver a final report including tables to show RFM Scores, Segmented Groups, Insights and recommendations.

Tools, Skills, Methodologies
- SQL
- BigQuery
- Tableau

Approach:
Explore data sets and build RFM model.

Steps 1:
Data Collection: sale data in CSV format sourced from Kaggle and loaded into Google BigQuery for analysis

Step 2:
Data Transformation and exploratory analysis

Step 3:
Build an RFM model:
- Assign Recency, Frequency, and Monetary values to each customer
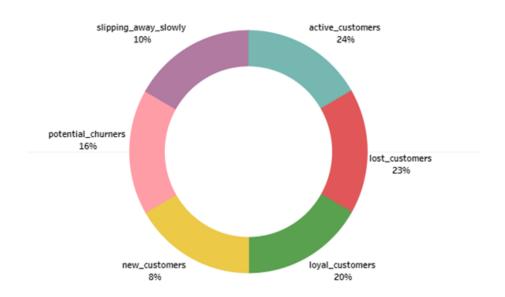- Divide the customers into tiered group

RFM Table:

RFM Table

Customername	Rfm Score	Rfm Segment	Rfm Re..	Rfm Fre..	Rfm Mo..
Alpha Cognac	422	active_customers	4	2	2
Amica Models & Co.	133	slipping_away_slowly	1	3	3
Anna's Decorations, Ltd	344	loyal_customers	3	4	4
Atelier graphique	211	lost_customers	2	1	1
Australian Collectables, L..	421	active_customers	4	2	1
Australian Collectors, Co.	344	loyal_customers	3	4	4
Australian Gift Network, ..	311	new_customers	3	1	1
Auto Assoc. & Cie.	111	lost_customers	1	1	1
Auto Canal Petit	433	active_customers	4	3	3
Auto-Moto Classics Inc.	311	new_customers	3	1	1
AV Stores, Co.	244	slipping_away_slowly	2	4	4
Baane Mini Imports	233	potential_churners	2	3	3
Bavarian Collectables Imp..	111	lost_customers	1	1	1
Blauer See Auto, Co.	222	potential_churners	2	2	2
Boards & Toys Co.	311	new_customers	3	1	1
CAF Imports	111	lost_customers	1	1	1
Cambridge Collectables Co.	111	lost_customers	1	1	1
Canadian Gift Exchange N..	222	potential_churners	2	2	2
Classic Gift Ideas, Inc	221	potential_churners	2	2	1
Classic Legends Inc.	222	potential_churners	2	2	2
Clover Collections, Co.	111	lost_customers	1	1	1
Collectable Mini Designs C..	123	lost_customers	1	2	3
Collectables For Less Inc.	322	active_customers	3	2	2
Corporate Gift Ideas Co.	344	loyal_customers	3	4	4
Corrida Auto Replicas, Ltd	234	active_customers	2	3	4
Cruz & Sons Co.	233	potential_churners	2	3	3
Daedalus Designs Imports	121	lost_customers	1	2	1
Danish Wholesale Imports	444	loyal_customers	4	4	4
Diecast Classics Inc.	434	active_customers	4	3	4
Diecast Collectables	112	lost_customers	1	1	2

See full table in Tableau Dashboard

4. Analyzing and Visualization

RFM Segmentation

%RFM Score Distribtion

slipping_away_slowly
10%

active_customers
24%

potential_churners
16%

lost_customers
23%

new_customers
8%

loyal_customers
20%

See full table in Tableau Dashboard

5. Insights and Recommendations

By scoring our customers by recency, frequency, and monetary we were able to identify 6 major segments for targeting.

- **Insights:**

- Top Customer Segment (45%): About 45% of top customers (Loyal + Active customers) have transacted recently, frequently, and with high spending on average.

- New Customer Segment (8%): Recently acquired customers who just their first purchase and expected to return and spend more often.

- At Risk Customer Segment (26%): At-risk customers (Potential Churners, slipping Slowly, and lost customers) are customers whose last purchase was more than 229 days and purchased only one time, and spend less on average.

- **Recommendations:**

- Need to create a targeted campaign to re-engage at-risk customers with incentives.

- Strategies aimed at converting new customers into active/loyal customers.

- Further analysis of top customers (active and loyal) to maximize earnings.

Important links:

[GitHub Repository](#)

[Tableau Dashboard](#)

[SQL in BigQuery](#)