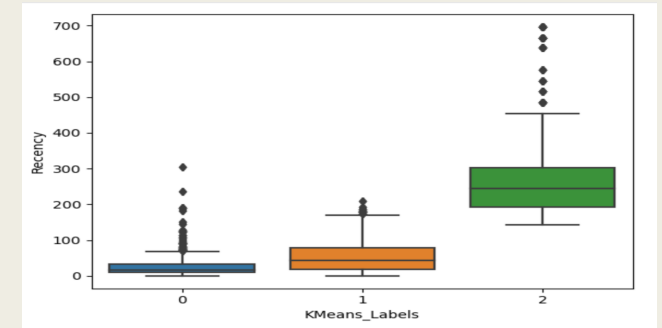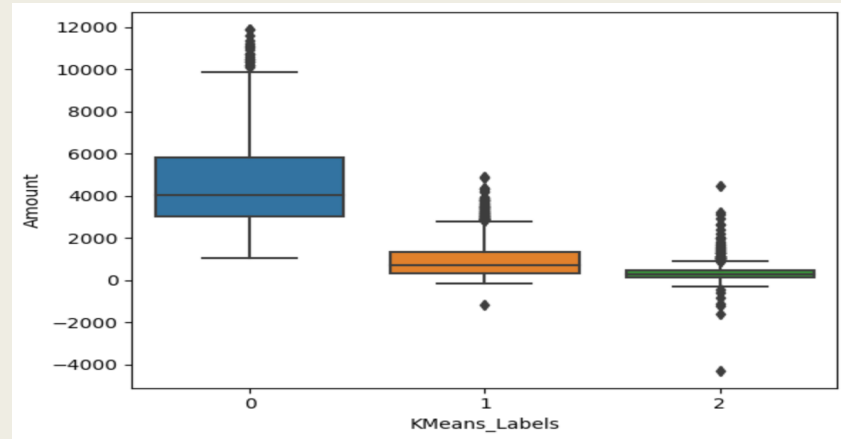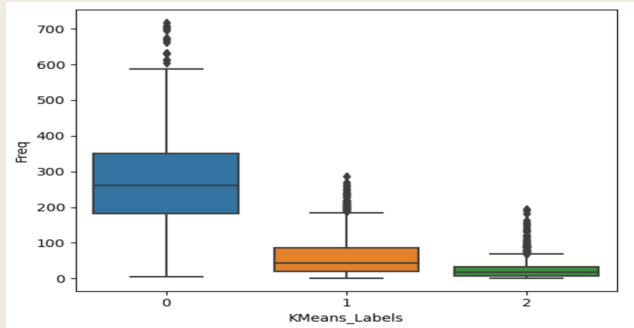# CUSTOMER SEGMENTATION ANALYSIS

INSIGHTS and RECOMMENDATIONS

Introduction

- RFM analysis, or Recency, Frequency, Monetary Value, is a data-driven method for segmenting customers and targeting them based on their behavior. RFM analysis scores customers based on three factors:
  - Recency: How recently a customer made a purchase
  - Frequency: How often a customer shops during a specific period
  - Monetary value: How much a customer spends

- We will be analyzing online retail data from a superstore dataset to understand purchasing behavior and optimize marketing strategies.

Data Overview and Cleaning

- There are 541909 entries and 8 columns. The columns Description and CustomerID have missing values

- Due to the size of the dataset, I removed the rows with null values using dropna() to ensure data integrity.

- Outliers were identified and removed using IQR method to maintain data reliability.

- After cleaning, the dataset reduced to 541909 records ready to start the RFM calculations.

RFM Analysis and Clustering

■ Segmented customers based on Recency, Frequency and Monetary Value (RFM) to identify behavior patterns.

■ Utilized K-means clustering on scaled RFM scores to categorize customers into distinct groups.

■ Cluster 0: Customers who spent the most and frequently visited the store.

■ Cluster 1: Customers who also didn't visit recently and don't visit often and spend less.

■ Cluster 2: Customers who rarely visited the store but have visited recently but didn't spend any money.

Recommendations

- Based on findings, it can be recommended to implement personalized marketing for high-value segments and enhancing loyalty programs for occasional buyers.

- To increase the revenue, we can focus more on people in Cluster 0.