**Customer Segmentation**

Dataset: [Download Link](https://www.dropbox.com/s/sbh7tdn8h3uqqvb/ecommerce-data.zip?dl=0)

This is a transnational data set that contains all the transactions occurring between 01/12/2010 and 09/12/2011 for a UK-based and registered non-store online retail. The company mainly sells unique all-occasion gifts. Many customers of the company are wholesalers. The following is the description of every column in the dataset.

|  |  |  |
| --- | --- | --- |
| InvoiceNo | Invoice number. | Nominal, a 6-digit integral number uniquely assigned to each transaction. If this code starts with the letter 'c', it indicates a cancellation. |
| StockCode | Product (item) code | Nominal, a 5-digit integral number uniquely assigned to each distinct product. |
| Description | Product (item) name | Nominal. |
| Quantity |  | The quantities of each product (item) per transaction. Numeric. |
| InvoiceDate | Invoice Date and time | Numeric, the day and time when each transaction was generated. |
| UnitPrice |  | Unit price. Numeric, Product price per unit in sterling. |
| CustomerID | Customer number | Nominal, a 5-digit integral number uniquely assigned to each customer. |
| Country | Country name | Nominal, the name of the country where each customer resides. |

Perform RFM (Recency, Frequency, Monetary) analysis for each customer. Use these RFM columns to perform K-means clustering.

Hint: For each customer, you will have three columns (Recency, Frequency, Monetary) after the RFM analysis.

After the analysis prepares a Power BI report which should provide insights like:

1. Top customers on basis of RFM score.
2. Best Customers, Big Spenders, Lost Customers, Loyal Customers, etc.

You can further analyze the clusters and come up with any other insights that you may find useful.