Capstone Project Submission

Instructions:

i) Please fill in all the required information.

ii) Avoid grammatical errors.

Team Member's Name, Email and Contribution:
Dharmeshbhai Champakbhai Patel dharmeshpatel111719@gmail.com
Please paste the GitHub Repo link.
Github Link:- https://github.com/dharmesh-data/Retail-Customer-Segmentation.git
Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)

This dataset 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 It includes over 541909 records and 7 attributes.
Customer segmentation is the process of separating customers into groups on the basis of their shared behavior or other attributes. The groups should be homogeneous within themselves and should also be heterogeneous to each other. The overall aim of this process is to identify high-value customer base i.e., customers that have the highest growth potential or are the most profitable.
Firstly, EDA is done with Standardization, Feature Selection, and Encoding of Categorical Variables.
For modelling I tried various unsupervised algorithms like:

1. **RFM Segmentation**
2. **K means Clustering**
3. **Silhouette Score Method**

RFM analysis can help in answering many questions with respect to their customers and this can help companies to make marketing strategies for their customers, retaining their slipping customers and providing recommendations to their customer based on their interest.
To evaluate the cluster, I have used Elbow method, Silhouette Score Method