Dependencies and Description :

Clustering.ipynb-clustering and hierarchical clustering code
EDA.ipynb- EDA Analysis

Dependencies:

- Plotly
- Matlplotlib
- Seaborn
- NumPy
- Datetime
- Sklearn
- from sklearn.preprocessing import StandardScaler
- from sklearn.cluster import KMeans
- from sklearn.metrics import silhouette_score
- from scipy.cluster.hierarchy import linkage
- from scipy.cluster.hierarchy import dendrogram
- from scipy.cluster.hierarchy import cut_tree

K-means clustering and hierarchical clustering:

Through K-means :

- ➔ Customer groups(2,3,5,7…) having cluster Id as 1 and 0 are very less frequent in placing a sales order.On contrary,Customer groups having cluster Id-2 are more frequent in placing orders.
- ➔ Customer groups having cluster Id 1 and 2 are recent buyers.
- ➔ Customers groups with Cluster Id 0 are not recent buyers and hence least of importance from a business point of view.

Through Hierarchical clustering :

- ➔ Customer groups with Cluster_Labels 1 and 2 are frequent buyers.
- ➔ Customers with group Cluster_Labels 0 are not recent buyers and hence least of importance from a business point of view.

Apriori algo.ipynb:

Dependencies:

- Python Collections
- Pandas
- Plotly
- Matlplotlib
- Seaborn
- NumPy
- Itertools
- mlxtend