**LAB#06**

#### **UNSUPERVISED LEARNING (K-MEANS CLUSTERING ALGORITHM) AND UNSUPERVISED LEARNING (APRIORI ALGORITHM)**

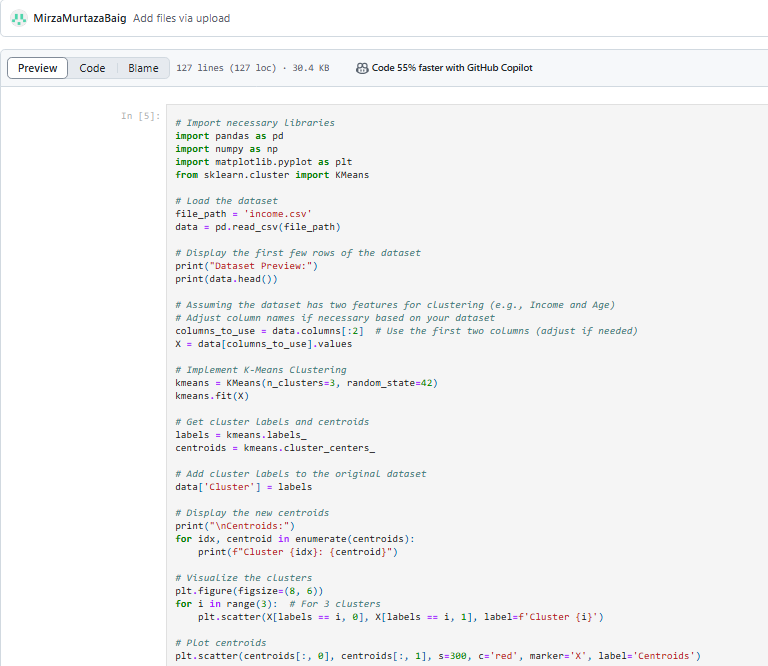
**OBJECTIVE:**

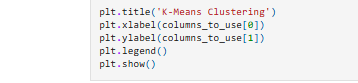
Implementing unsupervised learning, K-means clustering algorithm for training, testing and classification and Implementing Apriori Algorithm for training, testing and classification.

**LAB TASK:**

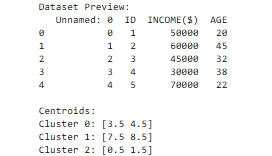
1. A dataset (income.csv) has been provided. Implement K-Means Clustering Algorithm on this dataset using K (number of clusters = 3). Also find out new centroid values based on the mean values of the coordinates of all the data instances from the corresponding cluster.

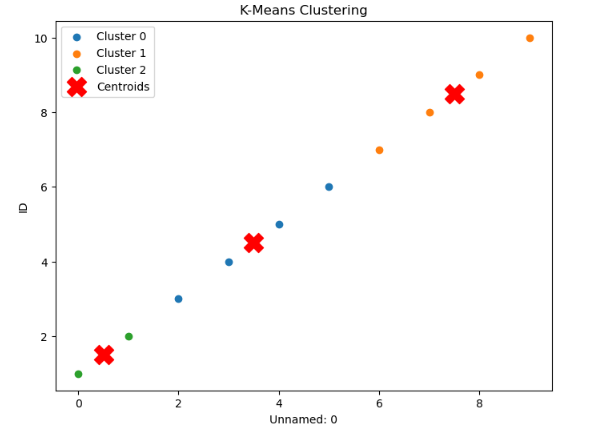
**CODE:**

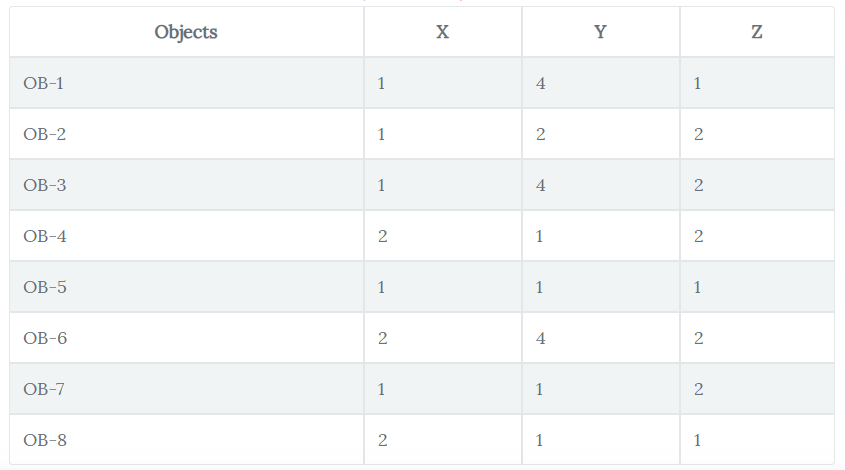




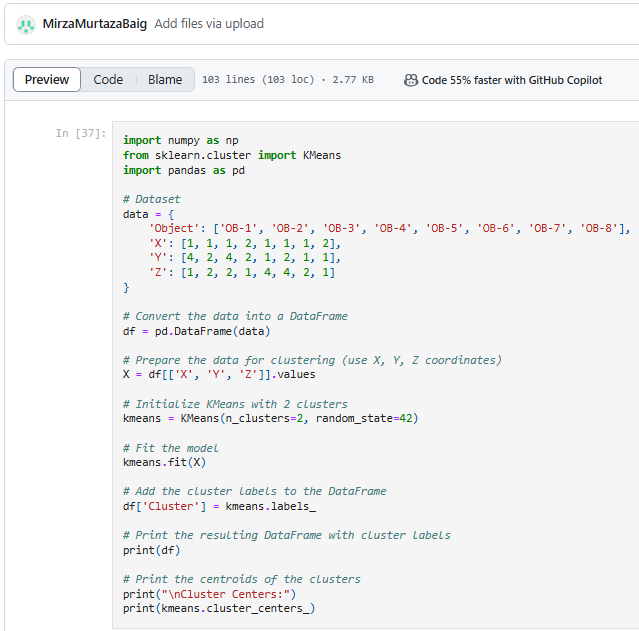
**OUTPUT:**



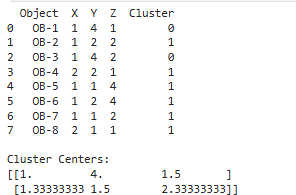


1. The following sample dataset contains 8 objects with their X, Y and Z coordinates. Your task is to cluster these objects into two clusters using K-Means Clustering Algorithm (here you define the value of K (of K-Means) in essence to be 2).

**CODE:**

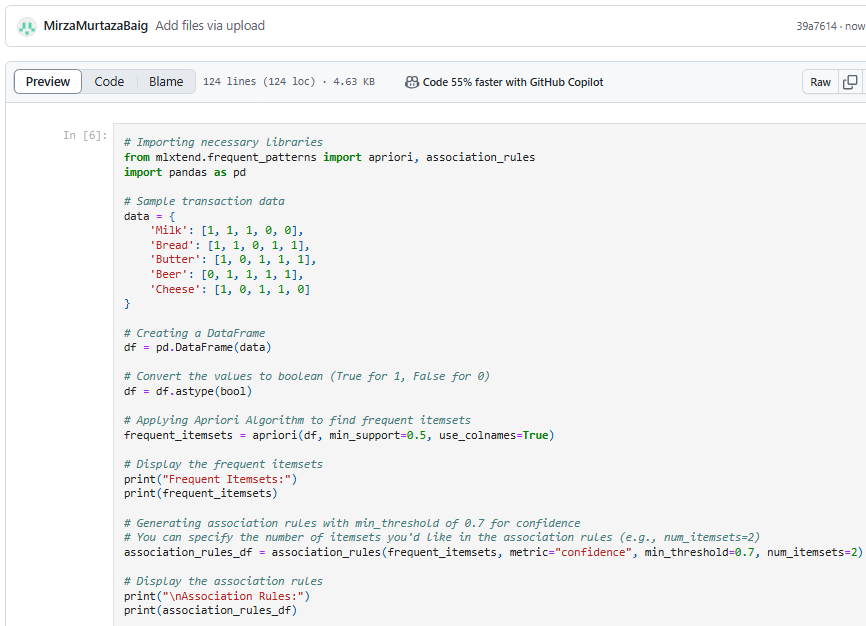


**OUTPUT:**

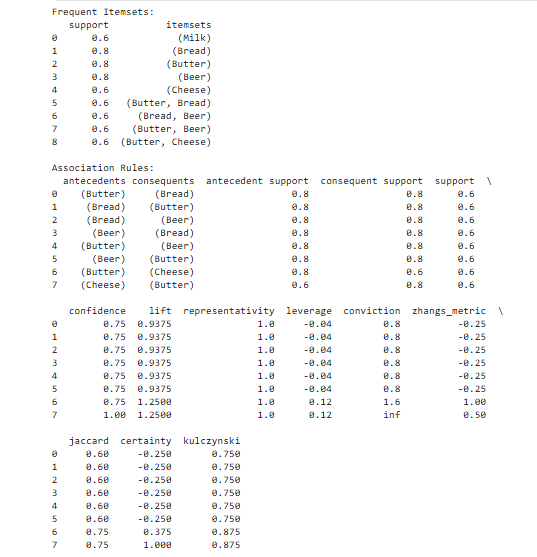


1. Run the given code of Apriori Algorithm and show the output.

**CODE:**



**OUTPUT:**



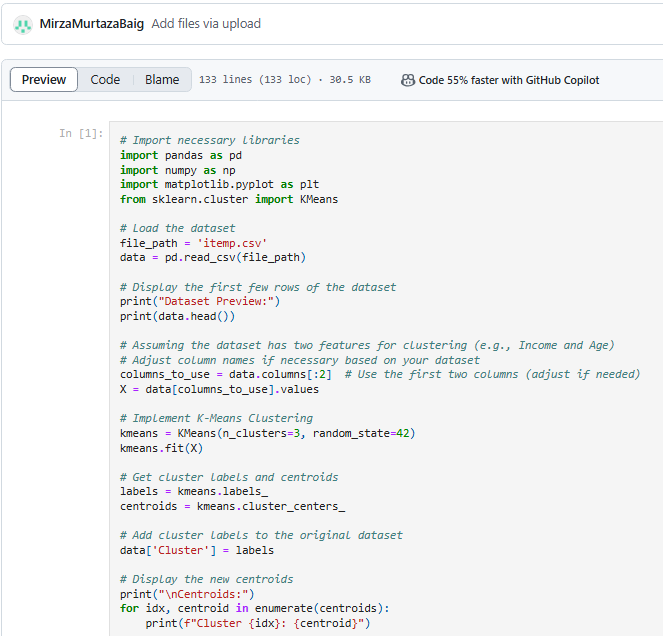
1. In given code there is a support value of at least 7%, Generate frequent item sets that have Support value of at least 5%.

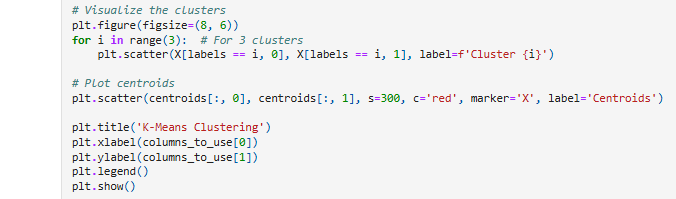
**CODE:**

**HOME TASK:**

**TASK#01:**

**CODE:**





**OUTPUT:**

