## LAB # 06

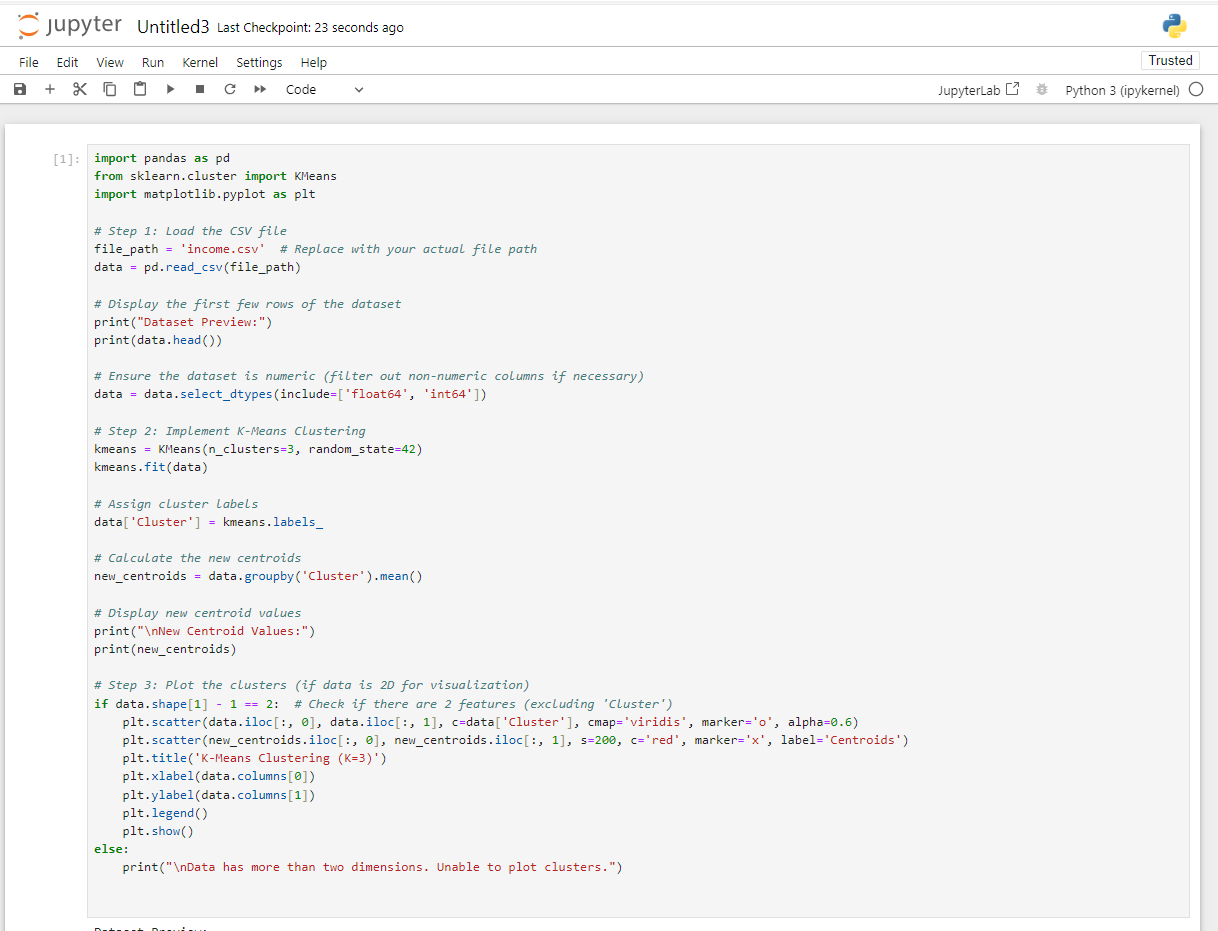
#### UNSUPERVISED LEARNING (K-MEANS CLUSTERING ALGORITHM) AND UNSUPERVISED LEARNING (APRIORI ALGORITHM)

##### OBJECTIVE

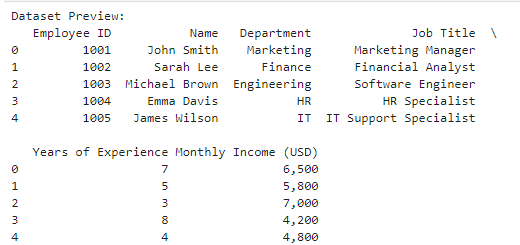
Implementing unsupervised learning, K-means clustering algorithm for training, testing and classification.and Implementing Apriori Algorithm for training, testing and classification.

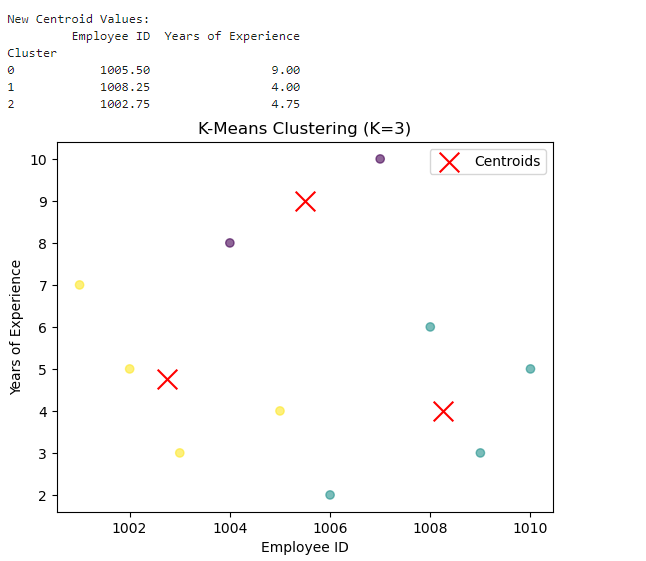
###### Lab Tasks:

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.

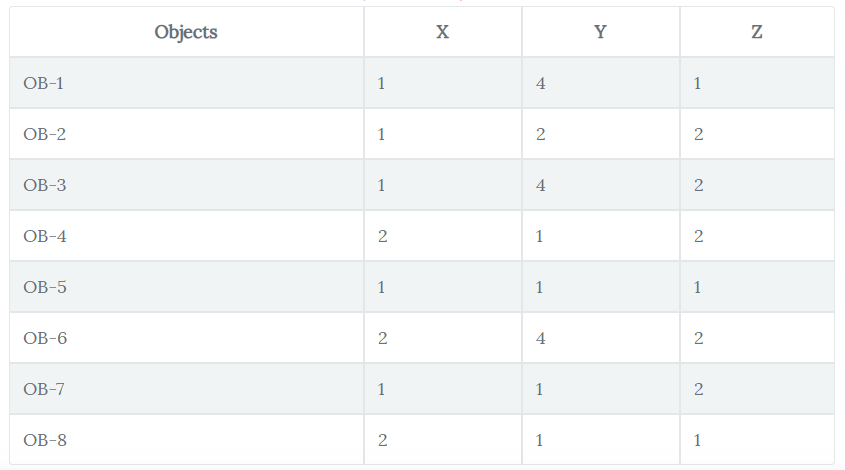
**CODE:**

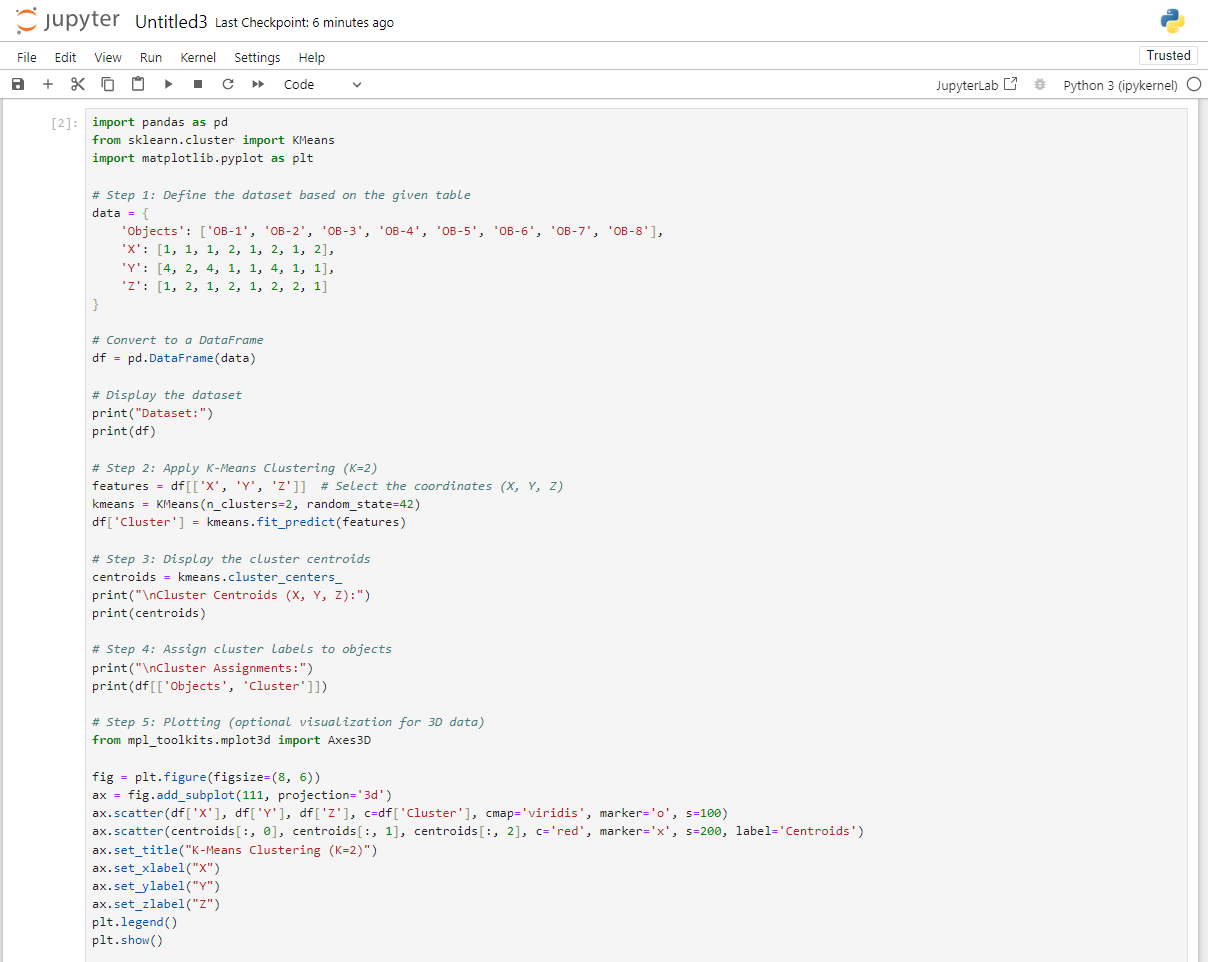
**OUTPUT:**

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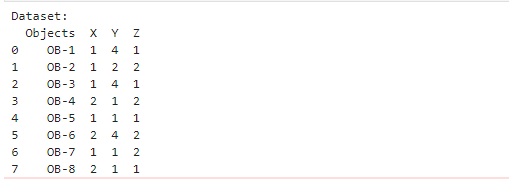
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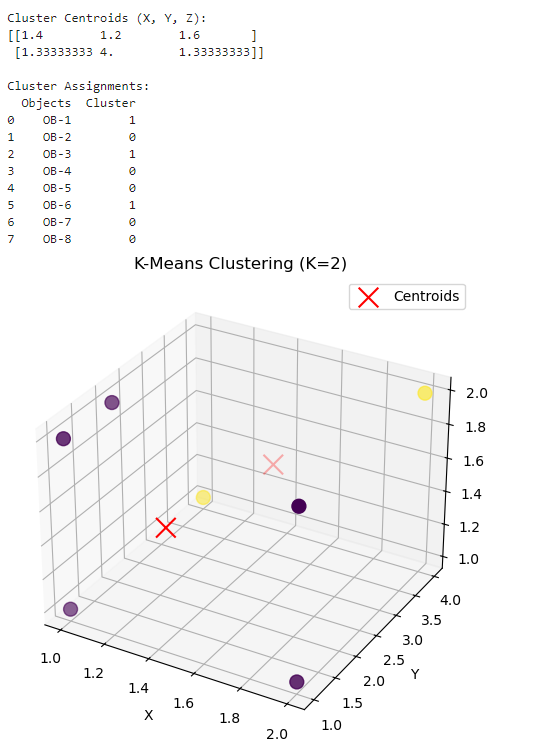
2. The following sample dataset contains 8 objects with their X, Y and Z coordinates. Your task is to cluster these objects into two clusters using K-Means Clustering Algorithm (here you define the value of K (of K-Means) in essence to be 2).

 **Datasett:**

**CODE:**

**OUTPUT:**





3.Run the given code of Apriori Algorithm and show the 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%.