

**Title:** Clustering Analysis and Classification using Python

**Aim:** Clustering the data set using K-Mean technique and Classification

**Task:** Working with K-Mean classification  
Working with Classification

**Exercises:**

**Question-01**

- i. Import the suitable libraries
- ii. Import the Bank.CSV file into Google colab notebook
- iii. Make an array of dataset
- iv. Create the Elbow chart
- v. Find the number of clusters
- vi. Define the clusters for each record
- vii. Concatenate the dataset and the cluster index
- viii. Visualize the clusters
- ix. Find the cluster centroid for each cluster
- x. Visualize the cluster centroids in the scatter plot

**Question 02**

- i. Import suitable libraries
- ii. Upload the data set Bank.CSV
- iii. Separate the data frame into two parts
- iv. Delete the class variable in independent dataset
- v. Split the dataset into test and training set
- vi. Find the prediction of the Using Decision tree
- vii. Construct the confusion matrix