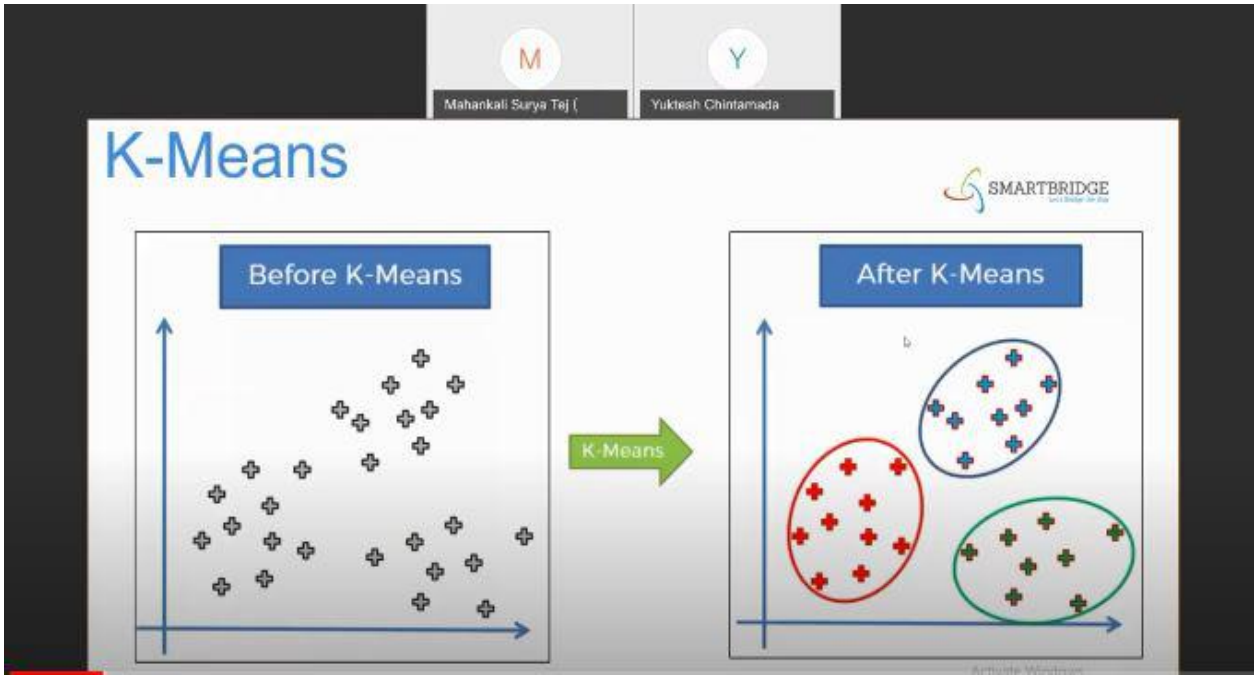
IBM Series 5 Workshop on "Machine Learning Using Python - K Means Clustering Algorithm" on 24th Sep 2020

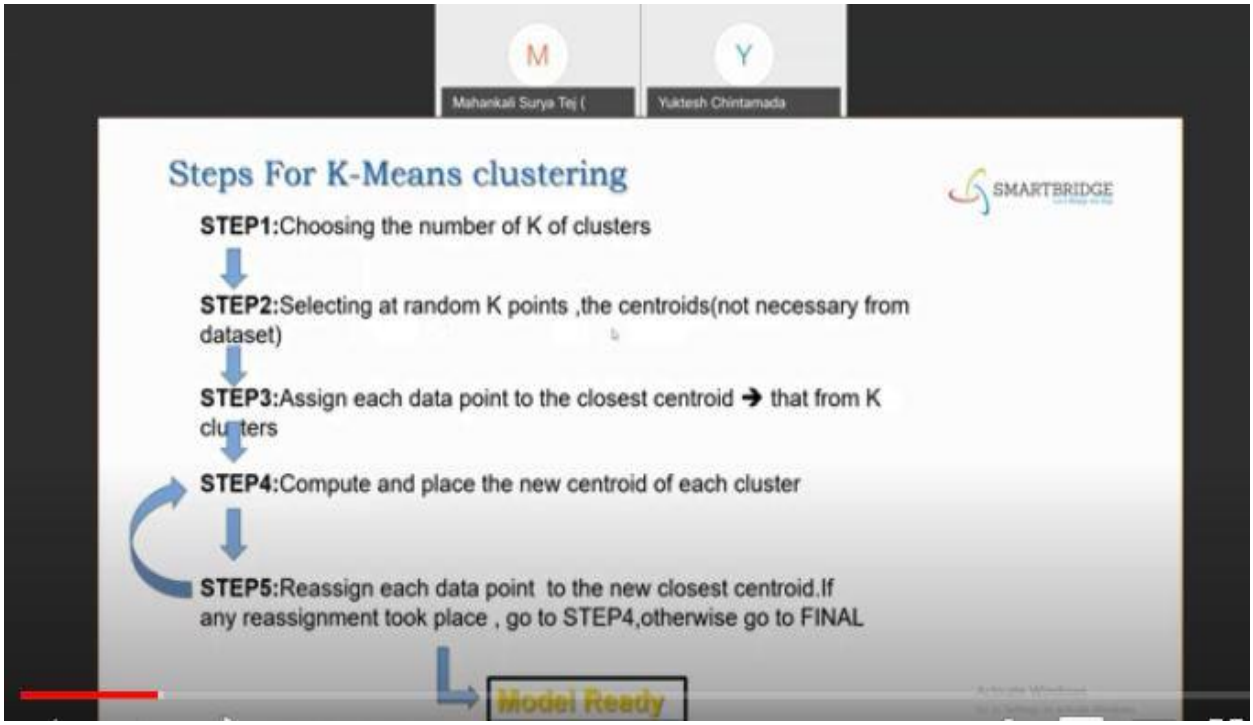
This workshop was conducted by IBM to enlighten the students on how to use python for Machine learning. This was the fifth session of the workshop from the series of a total number of six sessions of the workshop named "Machine Learning with Python". And this session was attended by students and faculties of various institutions across the country.

The session started with explanation of unsupervised learning. K-means clustering is one of the simplest and popular unsupervised machine learning algorithms. Unsupervised algorithms make inferences from datasets using only input vectors without referring to labelled outcomes. The objective of K-means is to group similar data points together and discover underlying patterns. To achieve this objective, K-means looks for a fixed number (k) of clusters in a dataset where k refers to the number of centroids you need in the dataset. A cluster refers to a collection of data points aggregated together because of certain similarities. Every data point is allocated to each of the clusters. The implementation of k-means clustering is explained using python programming. Finally the session concluded with question and answer session.

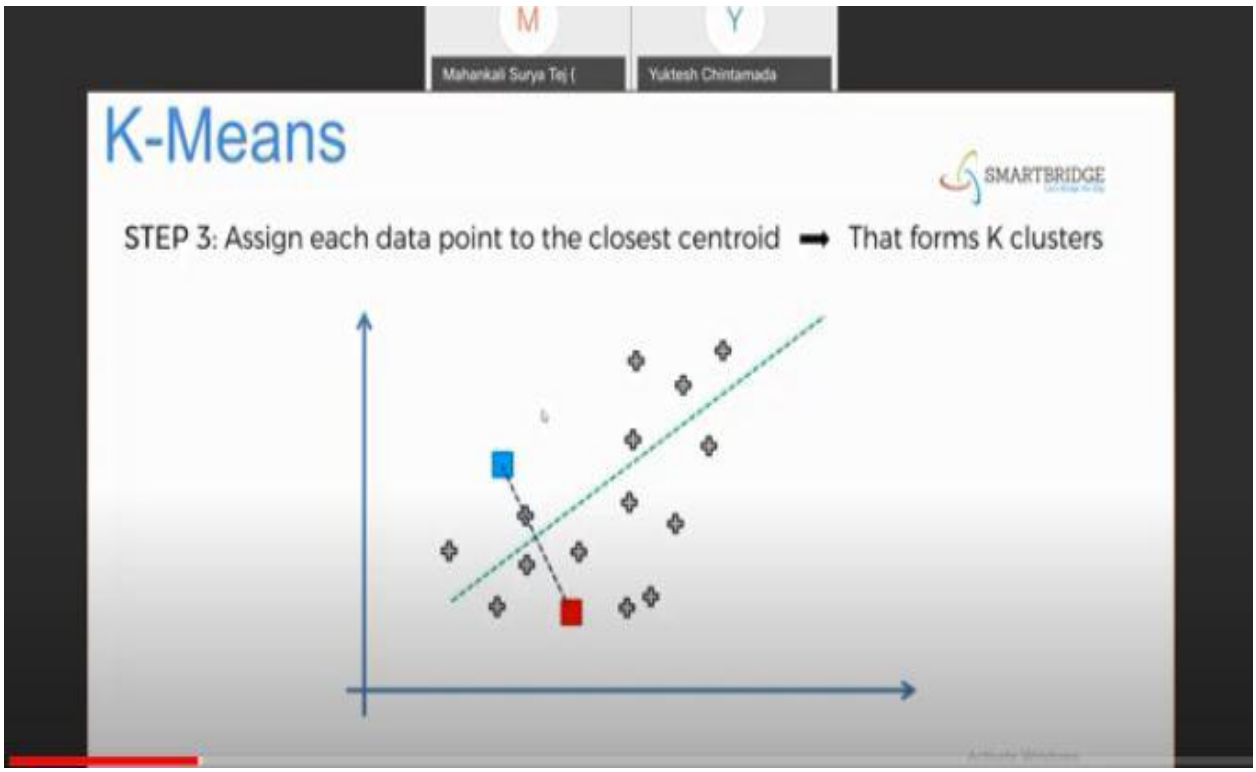
Pic1: Introduction to the topic Unsupervised Learning



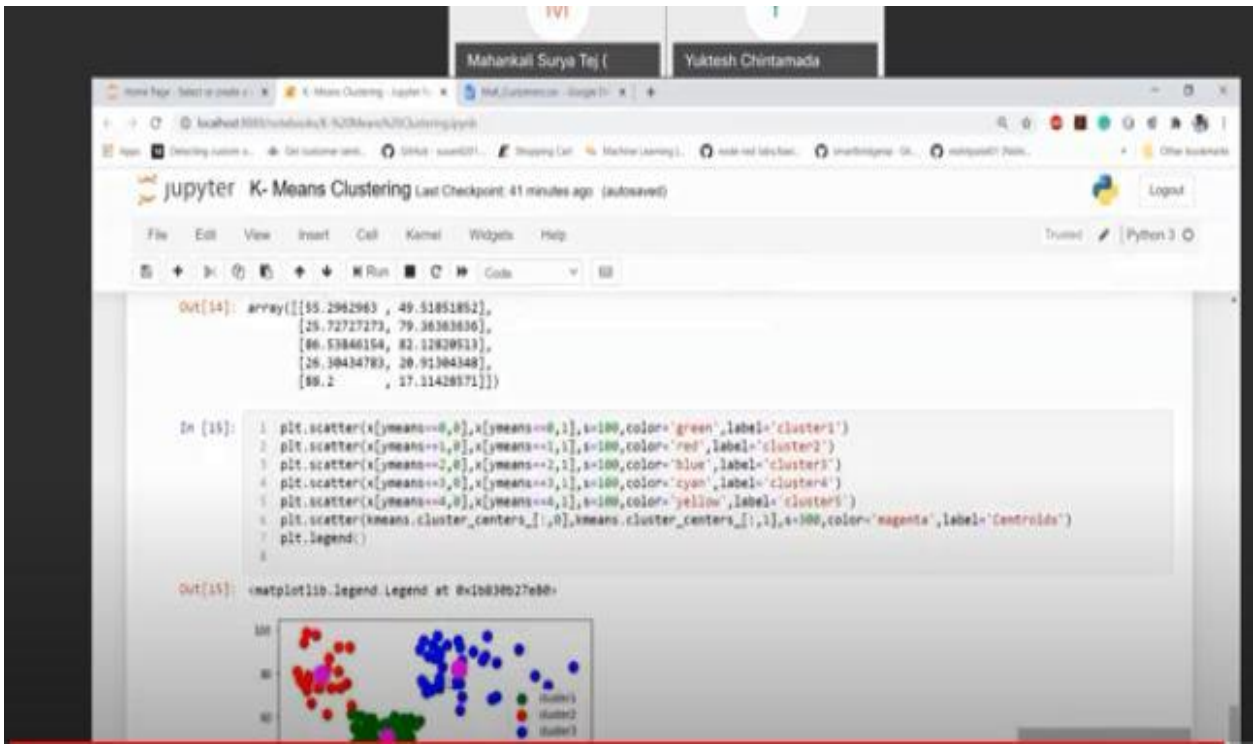
Pic2: K-Means Algorithm



Pic3: Steps for K-Means Algorithm



Pic4: Explanation of K-Means



Pic5: Output of final data set