Offline 3 on K-means Clustering

In this assignment, you will implement the K-means Clustering algorithm to cluster the input data points into 6 clusters.

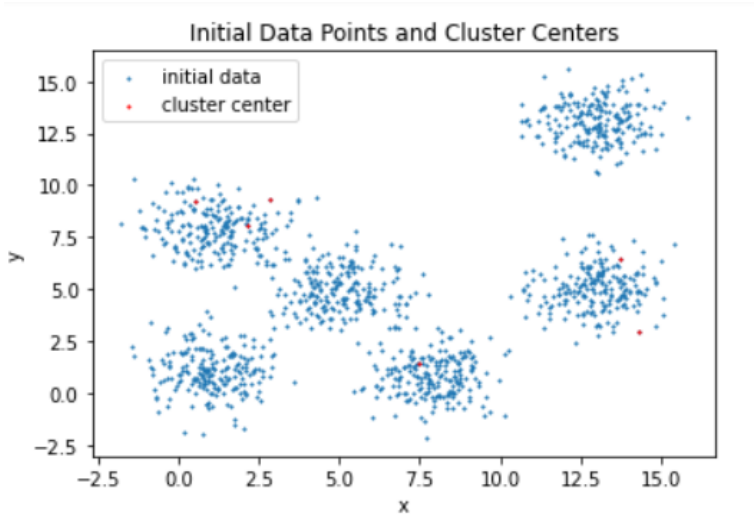
Instructions:

1. Read the attached **data.csv** file for the sample data points.
2. Choose 6 random centers as the initial center for the 6 clusters.
3. Use the Euclidean distance for distance calculation.
4. Take the average of x and y co-ordinates of all the members of each cluster to calculate its center.
5. Stop searching for more efficient clusters when less than 10 points switch their respective clusters.

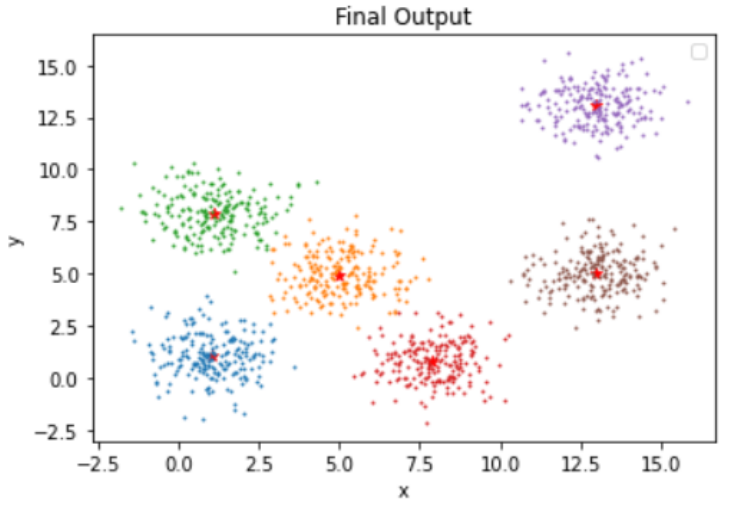
I have attached a python file named **kmeans_clustering.py** where you will only implement the **KmeansClustering class** according to the provided comments for each class methods.

If your implementation is correct then you will see **two scatter plots**, one representing the initial data and the second one representing the final clusters. If you run multiple times and your final output will vary every time. Because we are choosing our initial cluster centers randomly.

Demo output:



lo handles with labels found to put in legend.



[Zero Tolerance for Plagiarism]