LAB-4: CLUSTERING TECHNIQUES

1. Download Iris dataset and make it suitable for unsupervised learning.
2. Normalize the data.
3. Display middle 10 rows.
4. Display frequency variation for each feature after discretizing it.
5. Display any plot to show statistical information of each feature w.r.t. labels.
6. Display for each value of K, the sum of squared distance between each point and the centroid in a cluster.
7. Find the optimal number of clusters for K-means clustering (hint: use result of ques. 5).
8. Display heat map.
9. Use result of ques. 6 and 7 to display the result of k mean cluster in 2D plot and 3D plot.
10. Implement question ques. 9 using following techniques:
    a. K-medoid
    b. CLARANS
    c. BIRCH