

ELEC 425 Assignment 2

AUSTIN AMANN VAUGHAN 10101667

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Question 1

K medians was run for 2, 3 and 4 clusters with different random initial cluster centres each time. The initial cluster centres are displayed in the matlab terminal. I noticed when an initial cluster centre is chosen in the top left of the dataset where no data is found, no cluster will be produced. This only seemed to happen when 4 clusters were chosen.

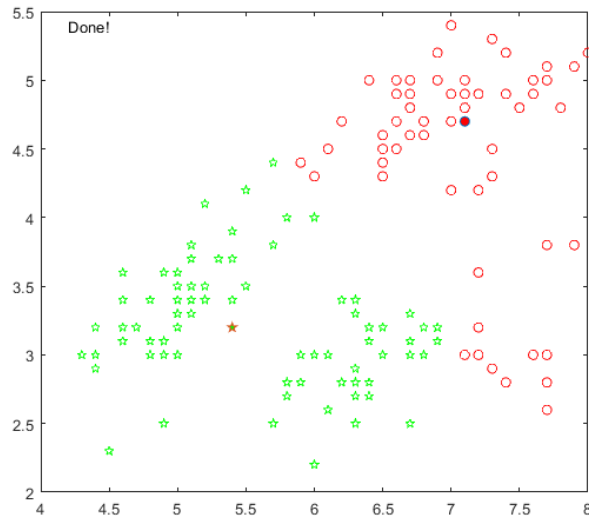


Figure 1 - K-medians for 2 clusters

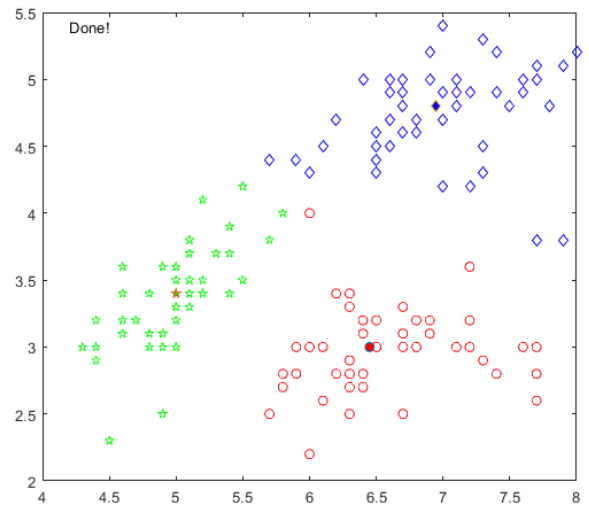


Figure 2 - K medians for 3 clusters

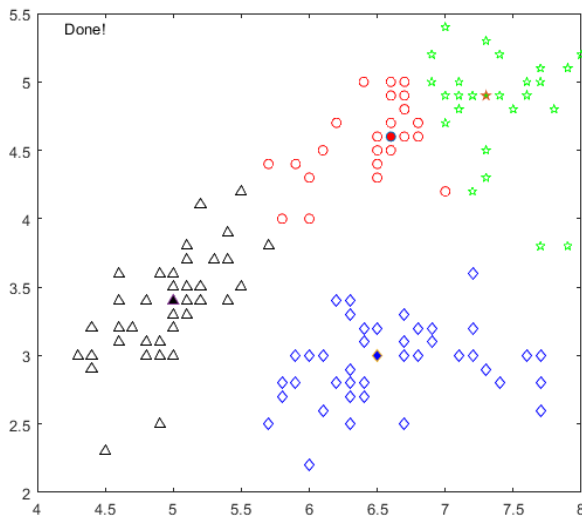


Figure 3 - K-medians for 4 clusters

Question 2

Question 3

K-medoids was performed for 2, 3 and 4 clusters. The initial centres were randomly generated points within the dataset and are displayed in the matlab terminal.

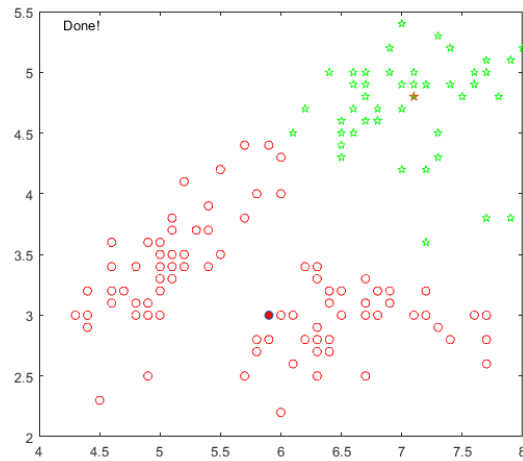


Figure 4 - K-medoids with 2 clusters

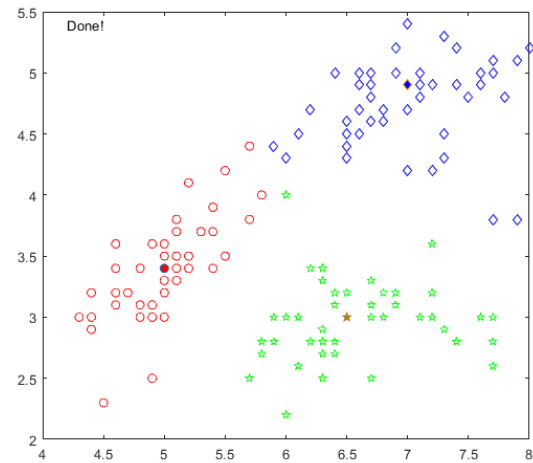


Figure 5 - K-medoids with 3 clusters

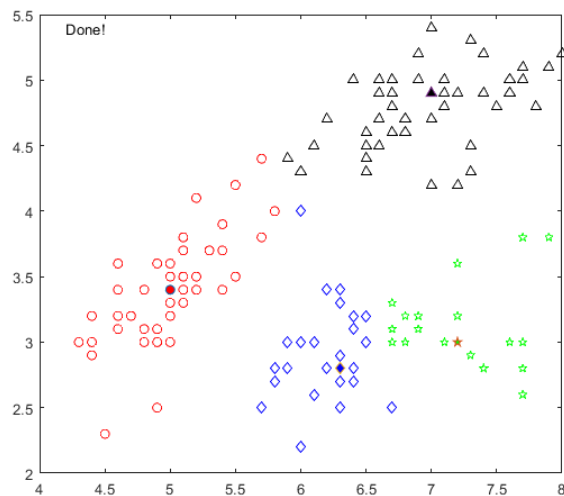


Figure 6 - K-medoids with 4 clusters