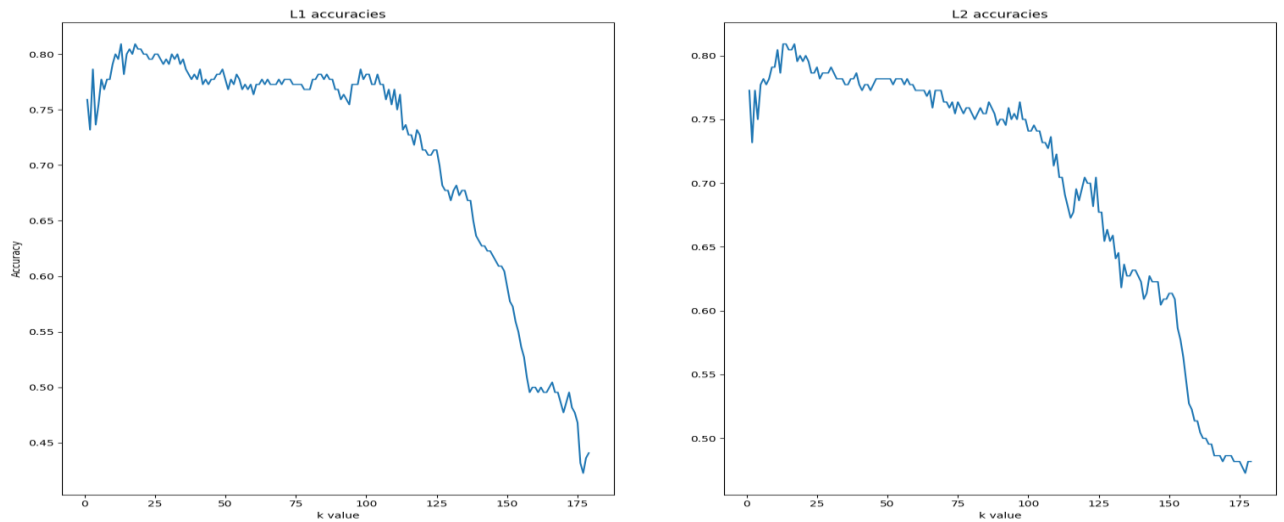


CENG 499

Homework 2 – Report

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1- KNN Algorithm



As it can be seen from the figure, average accuracy for the corresponding k-value tends to decrease. This happens, because of the majority voting part in the algorithm. As we start to get votes from more neighbors, single data is starting to be assigned the label that has more votes. Finally, we get highest accuracies with k values 13 and 14 for the L1 and L2 distances respectively. They are %83.89 for the L1 and %80.56 for the L2.

2- K-Means Clustering

Here is the objective function-k value graph and colored clustered data with black triangle on each cluster's center:

