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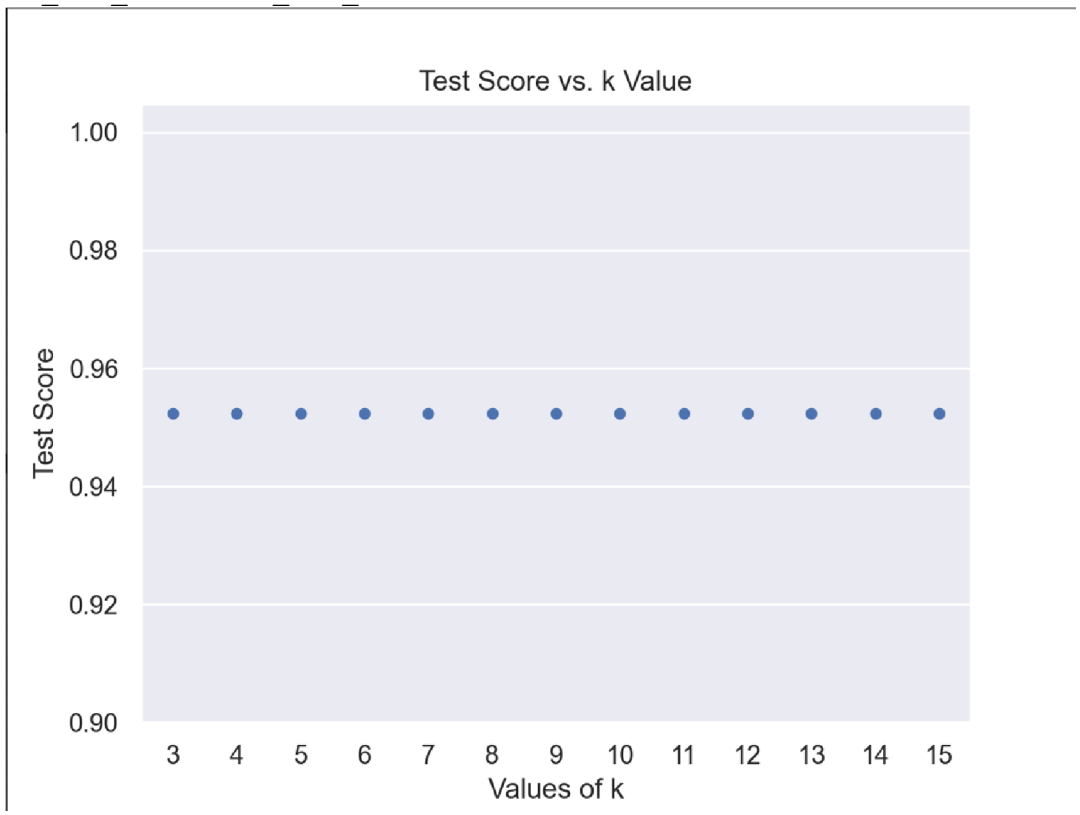
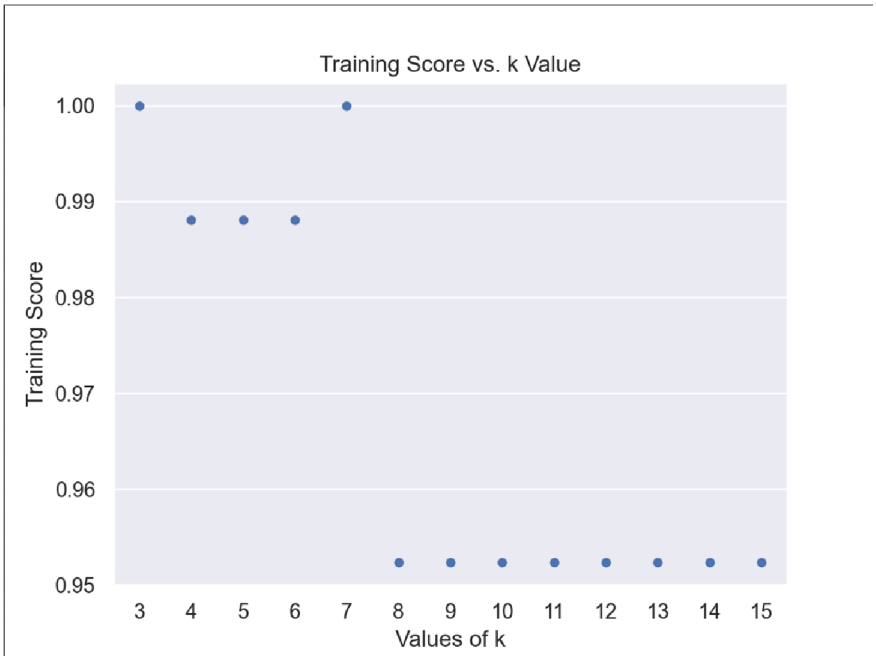
CS422 – Assignment 2

But how does K value affect the precision of your prediction? Suppose K value varies from 3 to 15.
Based on the test scores while k is ranging from 3- 15, the values do not seem to change. All the values of k seem to remain at a pretty high precision of over 95%.

Make a plot where the X measures how K value varies and Y measures the precision score of the test_data_set of 'seen_data_set'.

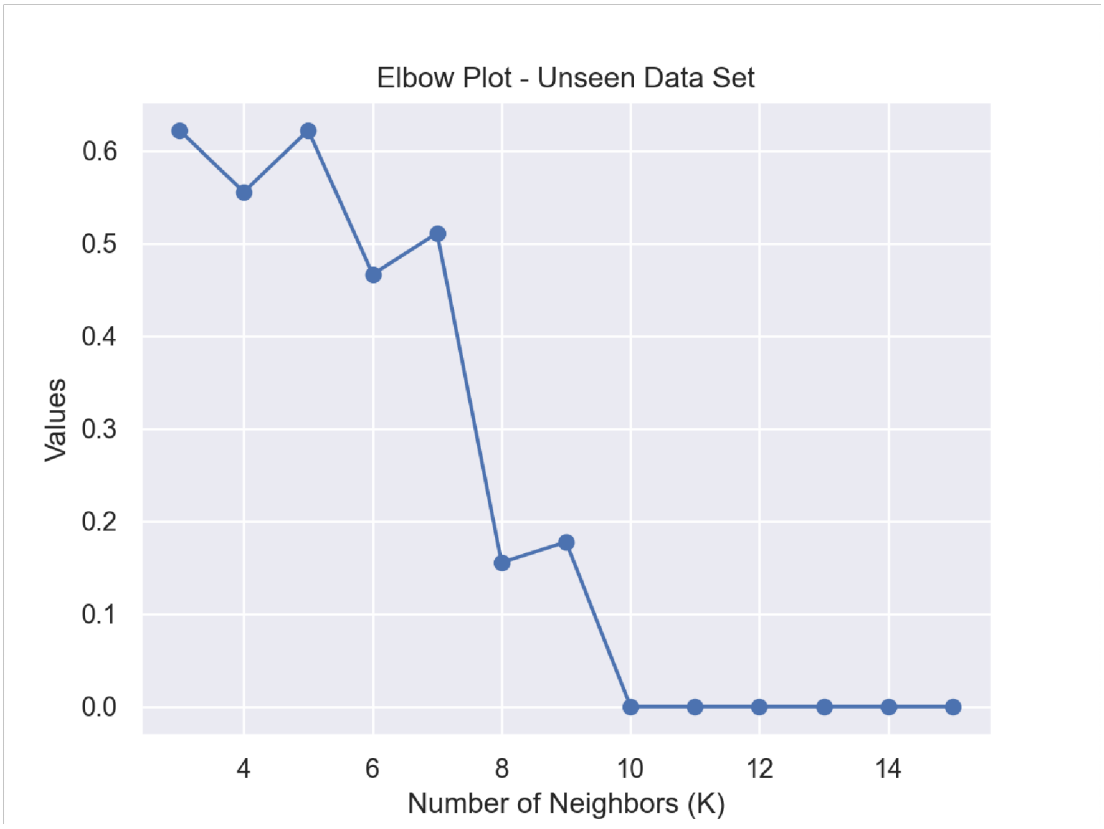


Out of the top 70% of the raw data, split into 80% for training and 20% for testing. We can see that the test score of the seen data, maintain the same high level of precision regardless of the change in k value.



(Additional information for the training data scores)

Make a plot where the X measures how K value varies, and Y measures the precision score when you apply your model to the unseen data set.



Based on the elbow graph, we could say that the elbow point could be estimated anywhere from 6 to 8 value of k. After k=9 increasing the value does not lead to a higher precision. When applying the model to the unseen data set, we can conclude that the model does a pretty good job at estimating the values of the bottom 30%