CIS 365 KNN Assignment

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Design a KNN classifier that classifies the flowers from the iris dataset. Repeat this classification using a) a single feature b) two features c) three features d) all the features. Repeat the classification for each of the following values of k: 3, 5, 7.

Use 60% of the data for training and 40% of the data for testing. Classification of the test data should be reported for each of the 3 iris classes by using a confusion matrix.

You may use a built-in library for the confusion matrix, but not to perform the classification. Once the assignment is complete you should have 12 confusion matrices.

Iris Dataset: https://archive.ics.uci.edu/ml/datasets/iris

The Euclidean distance should be used as the distance measure.

Approved Language: Python

The assignment will be graded based on completion and demonstration of completion.

Hand-in:

1. Screenshots of the confusion matrix for each of the 12 experiments.
2. Source code used to generate the above (please no zip files).