HW1 Summary Report

Generate an artificial dataset which contain three classes. Conduct a similar KNN analysis to the dataset and report your accuracy.

After conducting a similar KNN analysis:

Predictions from the classifier:

```
Predictions from the classifier:
[0 2 1 0 0 1 1 2 2 0 2 2 2 1 1 0 0 2 1 1 0 0 0 1 1 2 0 0 1 0 1 1 1 0 1 2 0
 1 0 1 2 2 2 0 2 0 2 2 0 0 0 1 2 2 2 2 1 1 0 1 2 1 2 2 2 0 0 0 0 0 0 0 1 1
 2 1 2 1 2 2 1 1 1 0 2 1 2 1 0 1 2 1 0 2 0 1 2 2 0 2 1 0 0 2 1 1 2 2 0 1 1
 1 2 2 2 1 1 2 1 2]
```

Target values:

```
Target values:
[0 2 1 0 0 1 1 2 2 0 2 2 2 1 1 0 0 2 1 1 0 0 0 1 1 2 0 0 1 0 1 1 1 0 1 2 0
 1 0 1 2 2 2 0 2 0 2 2 0 0 0 1 2 2 2 2 1 1 0 1 2 1 2 2 2 0 0 0 0 0 0 0 1 1
 2 1 2 1 2 2 1 1 1 0 2 1 2 1 0 1 2 1 0 2 0 1 2 2 0 2 1 0 0 2 1 1 2 2 0 1 1
 1 2 2 2 1 1 2 1 2]
```

Accuracy score: 1.0

The predicted values of training dataset are 100% equal to targets in training dataset.

After setting the parameter as *algorithm='auto', leaf_size=30, metric='minkowski', p=2, metric_params=None, n_jobs=1, n_neighbors=5, weights='uniform'* and conduct the KNN analysis again :

Accuracy score: 1.0

The predicted value of testing dataset are 100% equal to targets in testing dataset.