

ASSIGNMENT-5

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Roll Number : 2018-IMT-021

Course Name : Machine Learning

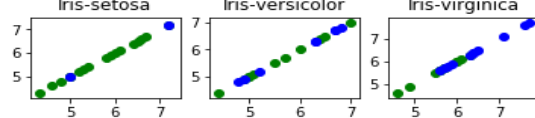
Course Code : ITIT - 4107

Given iris dataset (<https://archive.ics.uci.edu/ml/datasets/iris>) with 3 classes and 4 features such as sepals/petals, Length, width etc. for each flower in the dataset. There are 50 instances per class in the dataset. Use Bayes Classifier as your base classifier model. Use 60% samples for training and 40% samples for testing.

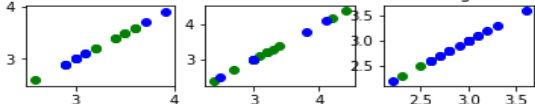
1. Perform feature selection on this dataset using forward search.

2. As you select features, until 2 features, plot your right and incorrect classification instances for all classes.

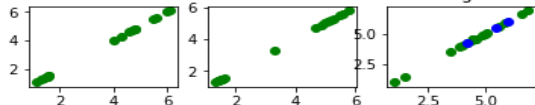
All instances of each class from selected feature : SepalLength



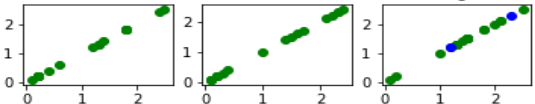
All instances of each class from selected feature : SepalWidth



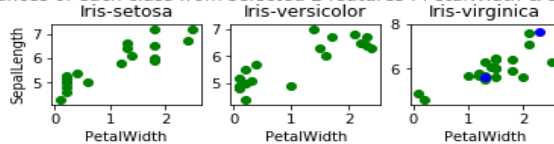
All instances of each class from selected feature : PetalLength



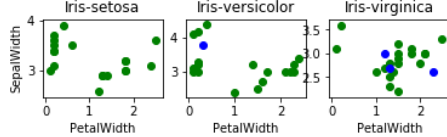
All instances of each class from selected feature : PetalWidth



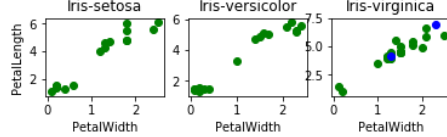
All instances of each class from selected 2 features : PetalWidth & SepalLength



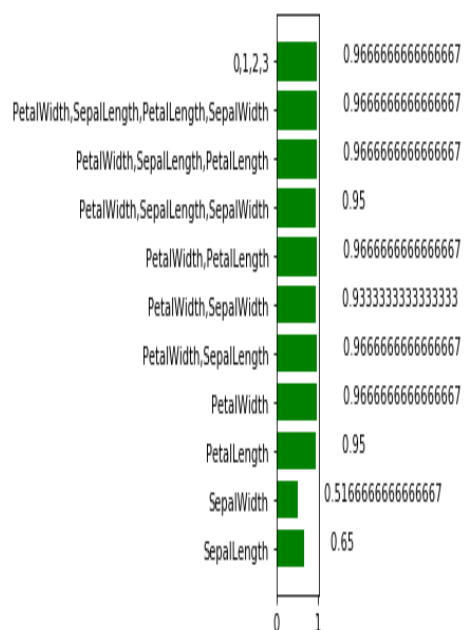
All instances of each class from selected 2 features : PetalWidth & SepalWidth



All instances of each class from selected 2 features : PetalWidth & PetalLength



3. For all the set of features selected, plot the accuracies to show the best subset of selected features



Inference : Code can be found here -

<https://github.com/arshPratap/ML-Assignment/blob/main/Assignment5.ipynb>