

ASSIGNMENT 5

Name: Vivek Kamboj

Roll No.: 2018IMT-109

Course: Machine Learning Lab

Course Code: ITIT-4107

Deadline: 25 October (11:59 PM)

Github : <https://github.com/Vivek-Kamboj/ITIT-4103-2021/tree/main/Assignment-5>

Objective:

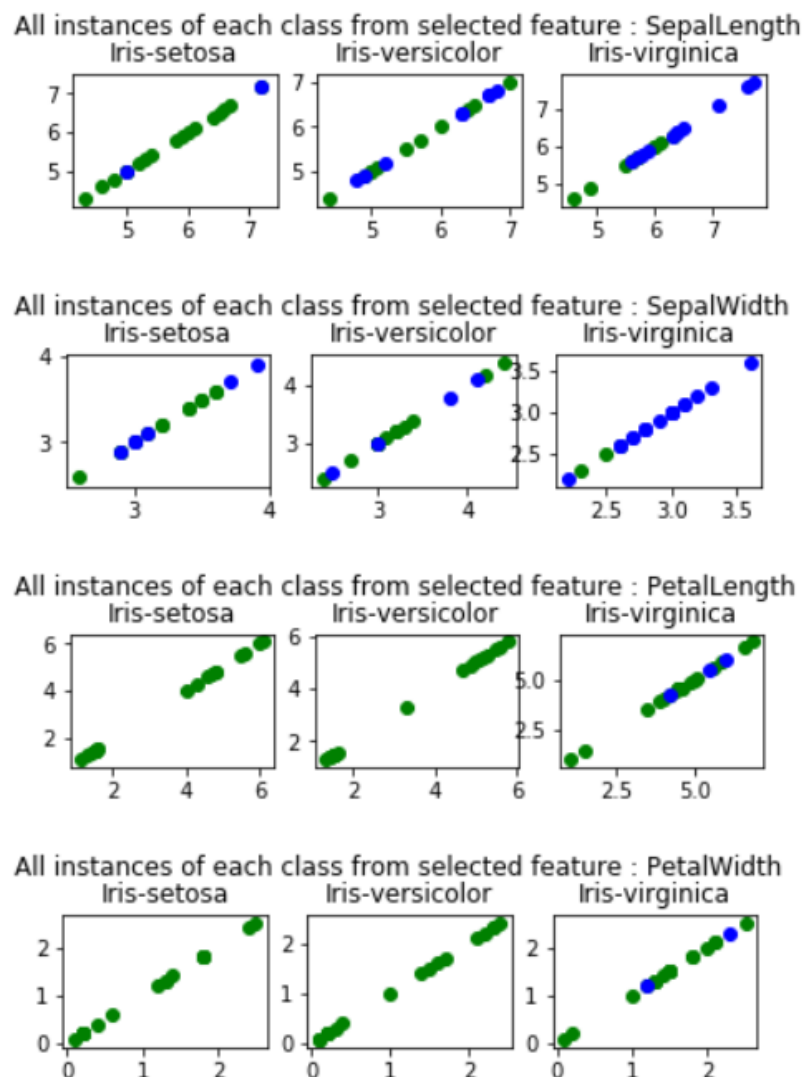
Given iris dataset (<https://archive.ics.uci.edu/ml/datasets/iris>) with 3 classes and 4 features such as sepals/petals, Length, width etc. for each flower in the dataset. There are 50 instances per class in the dataset. Use Bayes Classifier as your base classifier model. Use 60% samples for training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

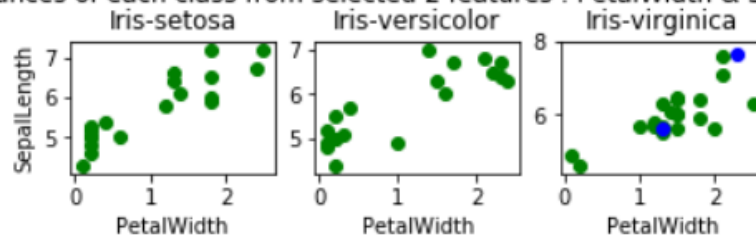
Result:

I have performed feature selection on the dataset given in question statement using forward search.

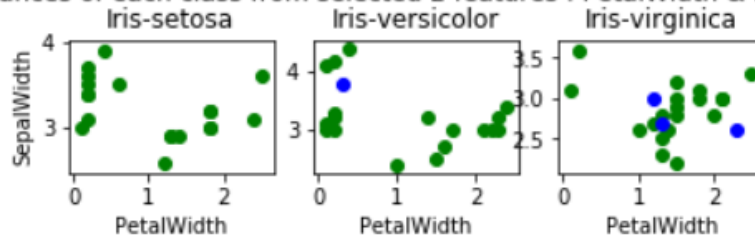
This are the plot of classification instances for all classes:



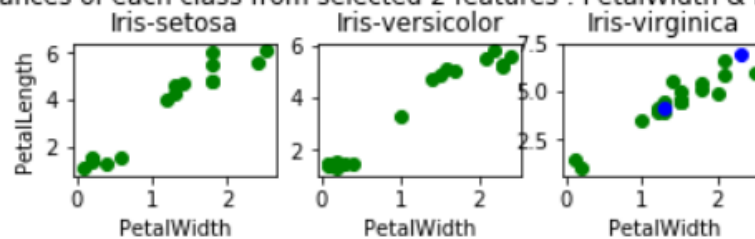
All instances of each class from selected 2 features : PetalWidth & SepalLength



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



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



This is accuracy for all subset of selected features:

