Instructions to run the Forward Selection function "hwfs"

The function named "hwfs" is provided along with this report. The function takes three inputs: data, labels, cvind. Please note for running hwfs function you need to load the dataset in the matlab environment by using the below command:

Load Dataset:

load('HW1Part2Dataset.mat')

Once the file is loaded one needs to run the following command to get the results

hwfs(data,labels,cvind)

The function returns the following:

- An array of selected features.
- The performance in the dataset with the selected features.

The function implements LDA algorithm to test the performance of different features to enable forward feature selection.

The selected features are: 53, 35, 52, 46, 27

The accuracy for the selected features is 0.8721

Please find below the performance of LDA with different feature subsets. These are described as follows:

Here, feature Indices are the feature number of attributes in the original set:

Forward Selection Performance

Feature Set	Features Indices	
Feature Set2	53,35	0.81077
Feature Set3	53,35,52	0.84111
Feature Set4	53,35,52,46	0.85579
Feature Set5	53,35,52,46,27	0.87210
FeatureSet1	53	0.77814

Forward Selection Performance