

Programming Assignment 3  
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**Dataset selected :** Iris Plants Database

**Number of Classes :** 3

**Number of Instances :** 50 per class

**Attribute Information:** 1. sepal length in cm

2. sepal width in cm

3. petal length in cm

4. petal width in cm

5. class:

-- Iris Setosa

-- Iris Versicolour

-- Iris Virginica

**Class Distribution :** 33.3% for each of 3 classes

- a) The data is divided into 5 groups  
Group of 4 is taken as training data and remaining group is for testing  
Confusion Matrix and Accuracy is computed for all the 5 cases  
Average Confusion Matrix and Accuracy is given below

Confusion Matrix	Predicted as class 1	Predicted as class 2	Predicted as class 3
Belongs to class 1	10	0	0
Belongs to class 2	0	9.6	0.4
Belongs to class 3	0	0.2	9.8

Accuracy = 98.0 %

- b) Class Distribution is equal for all the classes hence classification with posterior also yields the same result as likelihood (shown in part a)