

## PROBLEM STATEMENT:

The task is to build up following kinds of classifiers on various example datasets. Information about these datasets is provided in forthcoming sections. It is required to implement the following types of Classification schemes for each problem and record your observations.

1. Bayes Classifier (with different class conditional densities and estimation techniques)
2. Naive Bayes Classifier
3. K-means Clustering
4. K-Nearest Neighbor Classifier
5. Logistic Regression

You need to implement your code for each of the classifier. Also, compute various Classification Performance Parameters such as Accuracy, Recall, Precision, F1-Score.

For each of the datasets, you should compare the classification performance for different classification methods. You need to provide the analysis report for the results observed and various conclusions. Submission mode is Moodle. You are supposed to submit the code too.

**Submission Deadline:** 1st April, 2019

## DATASETS:

### 1. Haberman's Survival:

<https://archive.ics.uci.edu/ml/datasets/Haberman's+Survival>

### 2. Breast Cancer:

[https://archive.ics.uci.edu/ml/datasets/Breast+Cancer+Wisconsin+\(Diagnostic\)](https://archive.ics.uci.edu/ml/datasets/Breast+Cancer+Wisconsin+(Diagnostic))

### 3. Statlog (Heart):

[http://archive.ics.uci.edu/ml/datasets/statlog+\(heart\)](http://archive.ics.uci.edu/ml/datasets/statlog+(heart))

### 4. Hepatitis:

<https://archive.ics.uci.edu/ml/datasets/hepatitis>

### 5. Zoo dataset:

<https://archive.ics.uci.edu/ml/datasets/zoo>