**Classification Techniques**

In this Assignment you will explore and experiment with several classification and predictive modeling (KNN, SVM, Decision tree and Naïve Bayesian) to differentiate between spam and ham text messages.

For decision tree you should tune it for the best hyperparameters

For KNN you should tune it for best K

For the best tuned classifier, you should determine the

* The confusion matrix
* Precision
* Recall
* F1-Score
* Draw the ROC curves for all classifier on one graph

Interpret and explain your observation on result

You can find the data file on Moodle course page as “*SMSSpamCollection*”

**Note: you should first transfer the data file into features data set where each line is an instance and its word count as a feature**