Assignment 10: Spam Filter using Support Vector Machine

Steps:

(i) Load the required libraries

(ii) Import the dataset.

(iii) Seperating the data into Independent and dependent variables.

(iv) Split the dataset into testing and training set

(v) Train the SVM model over training set

    (a) Find the Optimal hyperplane as

        (A) For each line separating the two classes find the points closest to the line from both classes. These points are support vectors.

        (B) Calculate the Euclidean Distance between the points ie support vectors.

        (c) Find the line with maximum margin value.

        (D) This line makes the Optimal hyperplane

(vi) Predict class value for X-test using trained model

(vii) Compute the Accuracy and classification Report & the Accuracy and Classification Report & the confusion matrix.