

Machine Learning - Lab sheet - Module 4

EXERCISE 5 - TEXT CLASSIFICATION USING NAIVE BAYES CLASSIFIER

1 Objective

The objective is to

- implement Naive Bayes Classifier on a given dataset.

2 Steps to be performed

Tool Python3

Libraries required numpy, matplotlib, pandas, sklearn

Input SMS spam dataset from UCIML (Kaggle)

Machine Learning Model Naive Bayes Classifier

Implementation ML_Lab 13 NaiveBayes_TextClassification.ipynb

Steps .

- Understand the problem.
- Import required Python libraries.
- Import the dataset and convert to as dataframe.
- Preprocess the data. Extract columns as X and y .
- Partition the dataset into training and testing sets.
- Create an object of machine learning model. Specify the parameters if any.
- Train the model using training set.
- Predict the values for testing set using the model.
- Measure the performance of the model.
- Visualize the word clouds.

3 Results

- The machine learning model is fitted for the given dataset.

4 Observation

- The machine learning model is trained and tested using the given dataset.
- Word clouds were generated from the given dataset.