**EXPERIMENT-5**

# AIM:

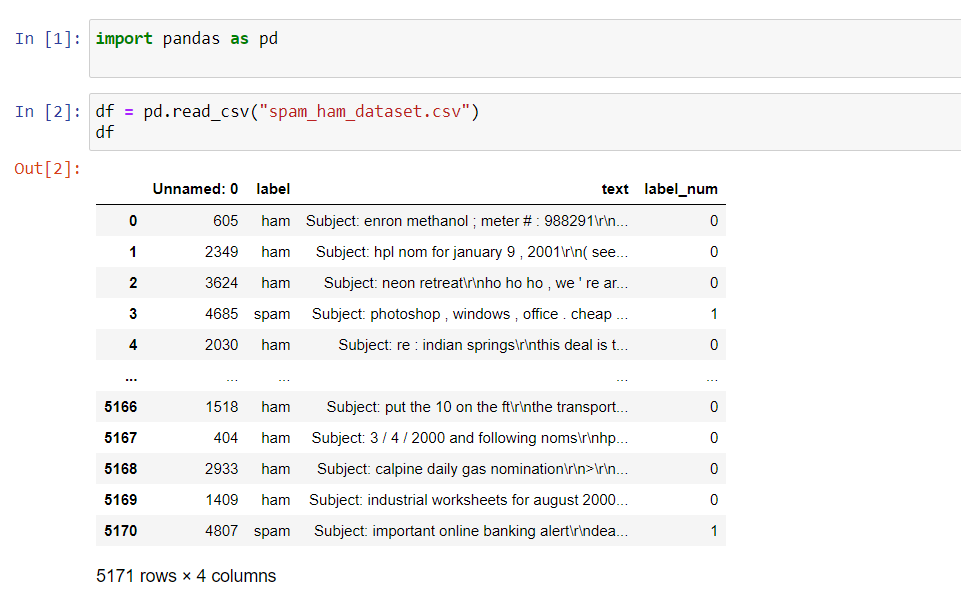
# Study and implement the Multinomial Naive Bayes on spam-ham-dataset.

# ALGORITHM:

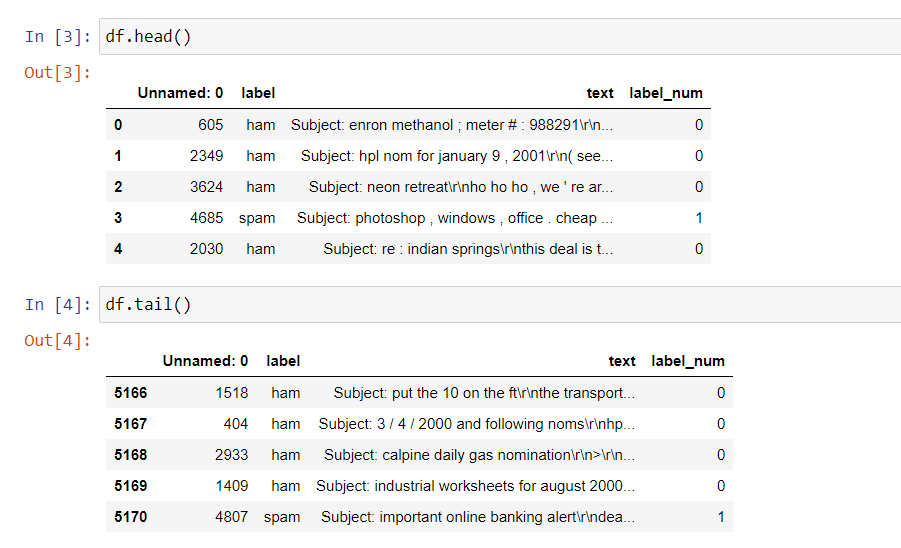
1. In the first step, feature engineering, we focus on extracting features of text. We need numerical features as input for our classifier.
2. In the non-naive Bayes way, we look at sentences in entirety, thus once the sentence does not show up in the training set, we will get a zero probability, making it difficult for further calculations.
3. In the final step, we are good to go: simply calculating the probabilities and compare which has a higher probability

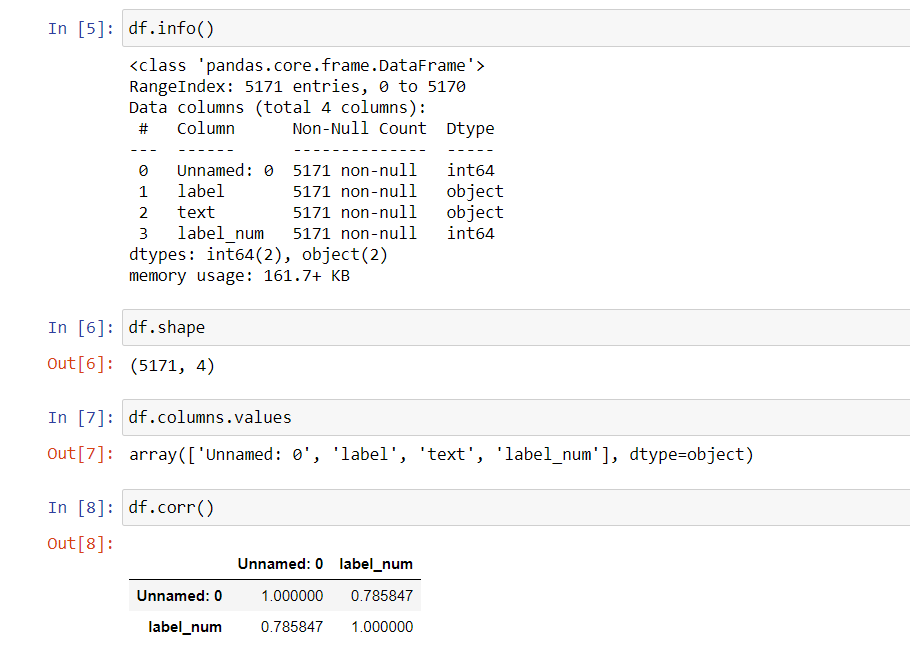
# PROGRAM CODE SNIPPET:

## LOADING DATA SET:



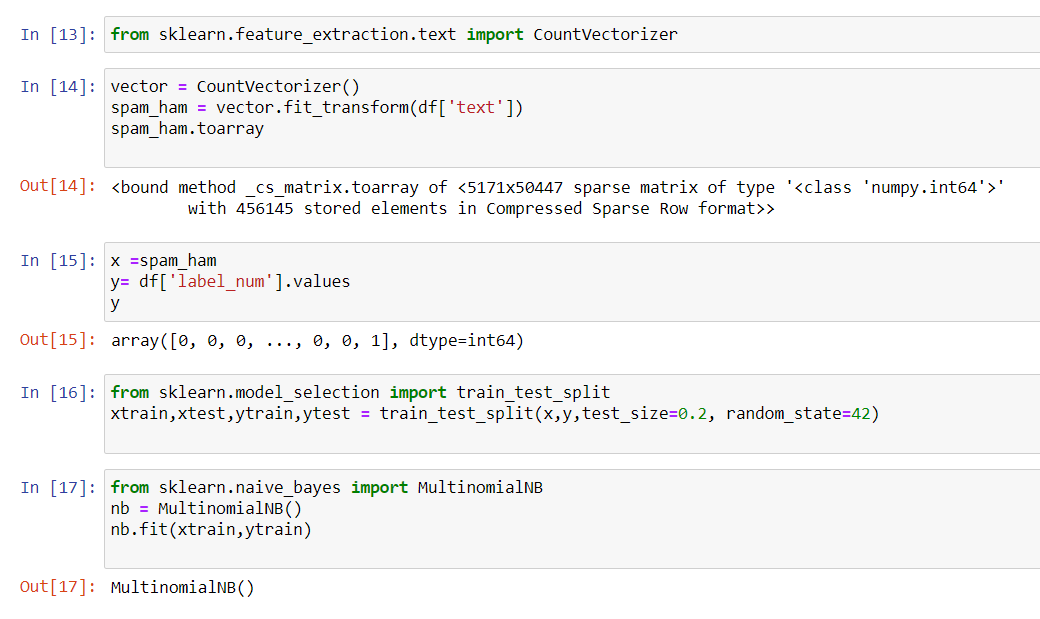
## PREPROCESSING:

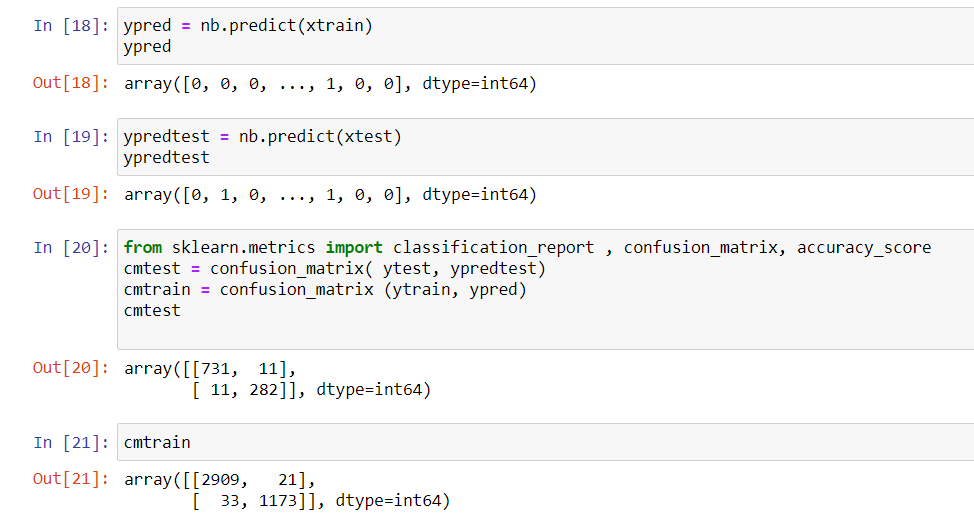


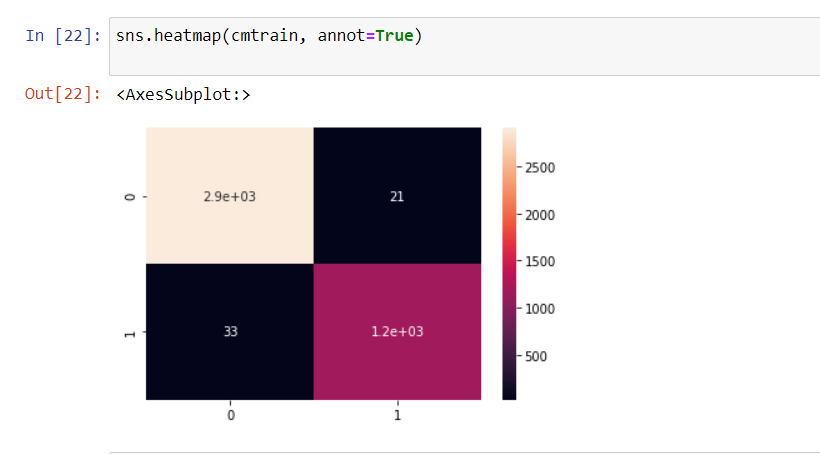


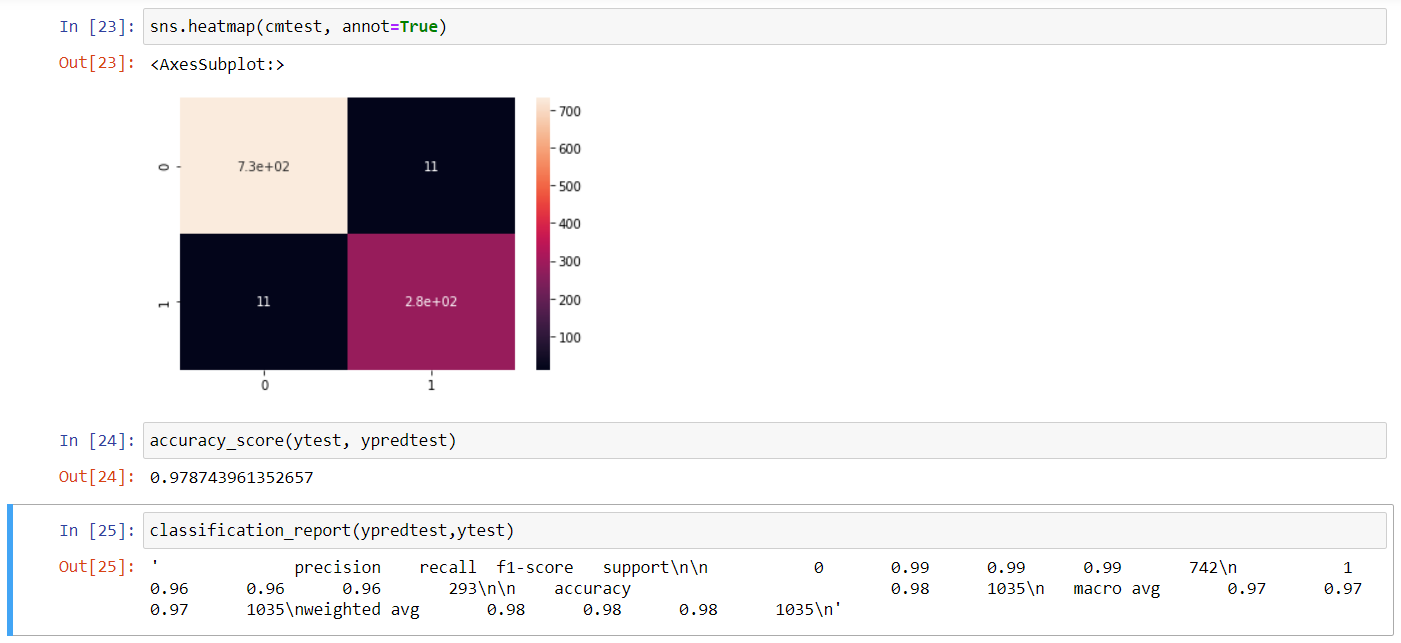
## VISUALIZATION:











# GITHUB LINK:

<https://github.com/gurkiratsingh-1/ML_Assignment_Gurkirat/blob/main/LAB/ML%20Experiment%205.ipynb>