Student Name : .....

Experiment No. : ..... Roll No.: .....

Date : .....

Experiment :- 7

- **Objective** :- Implementation of Naive Bayes algorithm on categorical dataset using weka explorer.

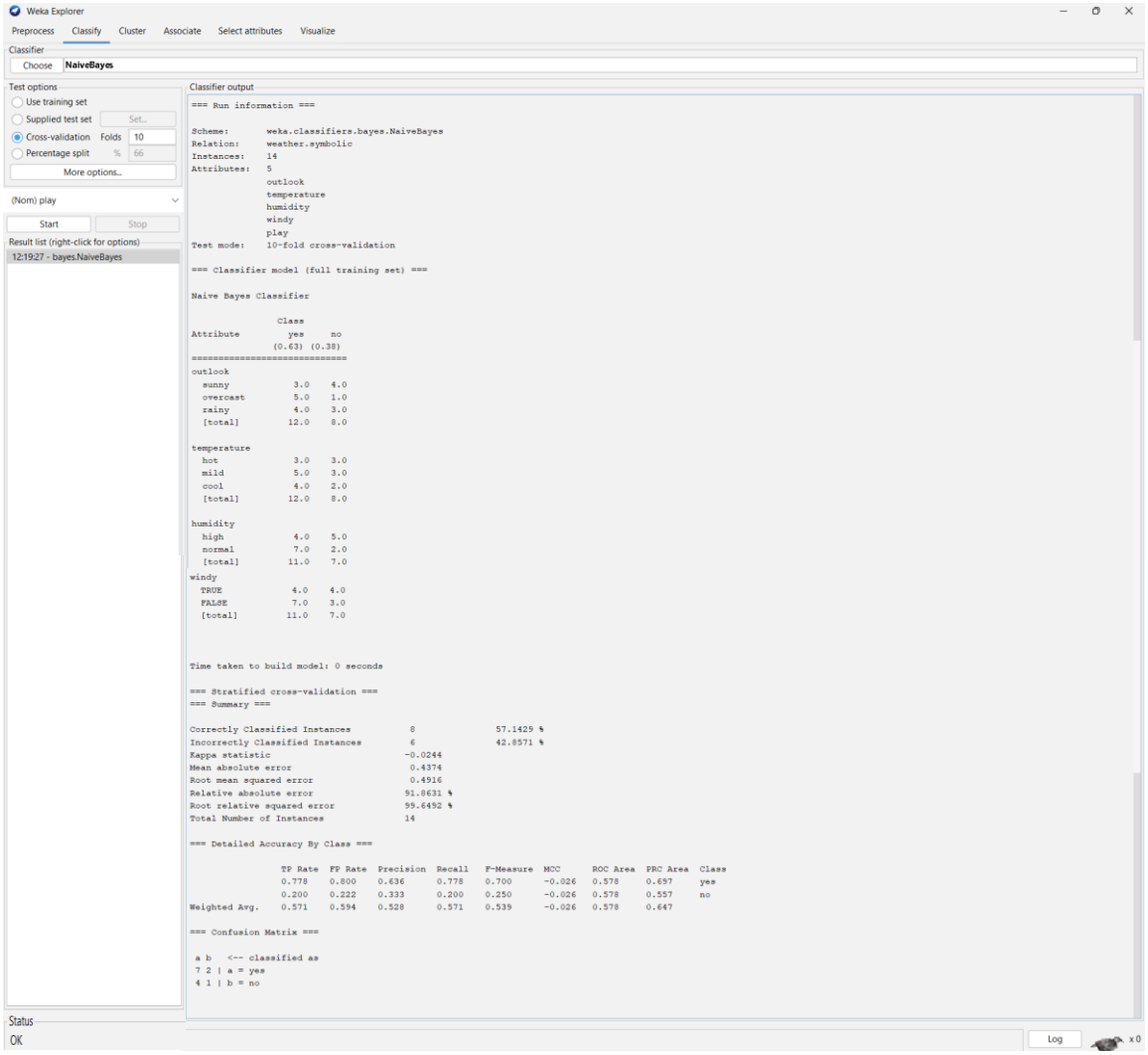
- **Key Conditions** :- Create dataset CSV file & import it apply NB algo to drawn the model. The supply test data to make prediction for new I/P & check accuracy.

- **Steps** :-

① Load the data (in explorer).
② Preprocess the data.
4 Check attribute type and class labels.
4 If needed use 'discretize' filter (under 'choose' > 'supervised' > 'attribute' > 'discretize') to convert numeric attribute into categorical ones.
③ Click on 'classify' tab
④ under 'choose', select bayes Naive Bayes'
⑤ Set test option
⑥ Click start button.

- **Result** :- Naive bayes classifier in weka provides accuracy score & precision recall matrics successfully implemented Naive Bayes algo.

EXPERIMENT 7



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Viva - Question :-

Q1 Depict the significance of the terms 'Naive' & 'Bayes' in Algorithm Nomenclature

→ Naive in Naive Bayes refers to assumption that feature are independent, simplifying computation 'Bayes' comes from Bayes theorem which calculates probability of an event based on prior knowledge.

Q2 Enlist the prominent real time application on NB classifier.

→ (1) Spam filtering → detecting spam emails based on word probabilities.

(2) face recognition :- Classifying facial expression or identities

(3) Sentiment analysis :- Classifying text as +ve, -ve or neutral.

(4) fraud detection :- Identifying fraudulent transaction in banking.