Experiment-3.1

Student Name: Milan Sharma
UID: 23MAI10003
Branch: CSE AIML
Section/Group: 23MAI-1
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Aim of the Experiment :

Aim of the Experiment is to train and test the prediction dataset (from UCI ML repository) using the 10 popular ML models and build your own ensemble using Majority voting and Stacking methods.

Objective of the Experiment :

Task to be done for this experiment is that we have to perform following tasks:

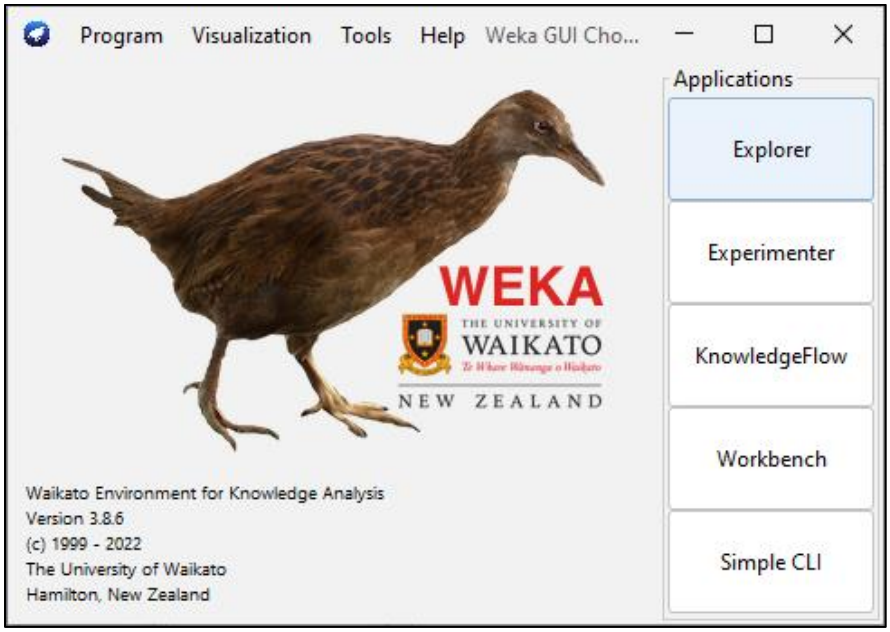
a) Train and test the prediction dataset (from UCI ML repository) using 10 popular ML models.

b) Build your own ensemble using Majority Voting and Stacking.

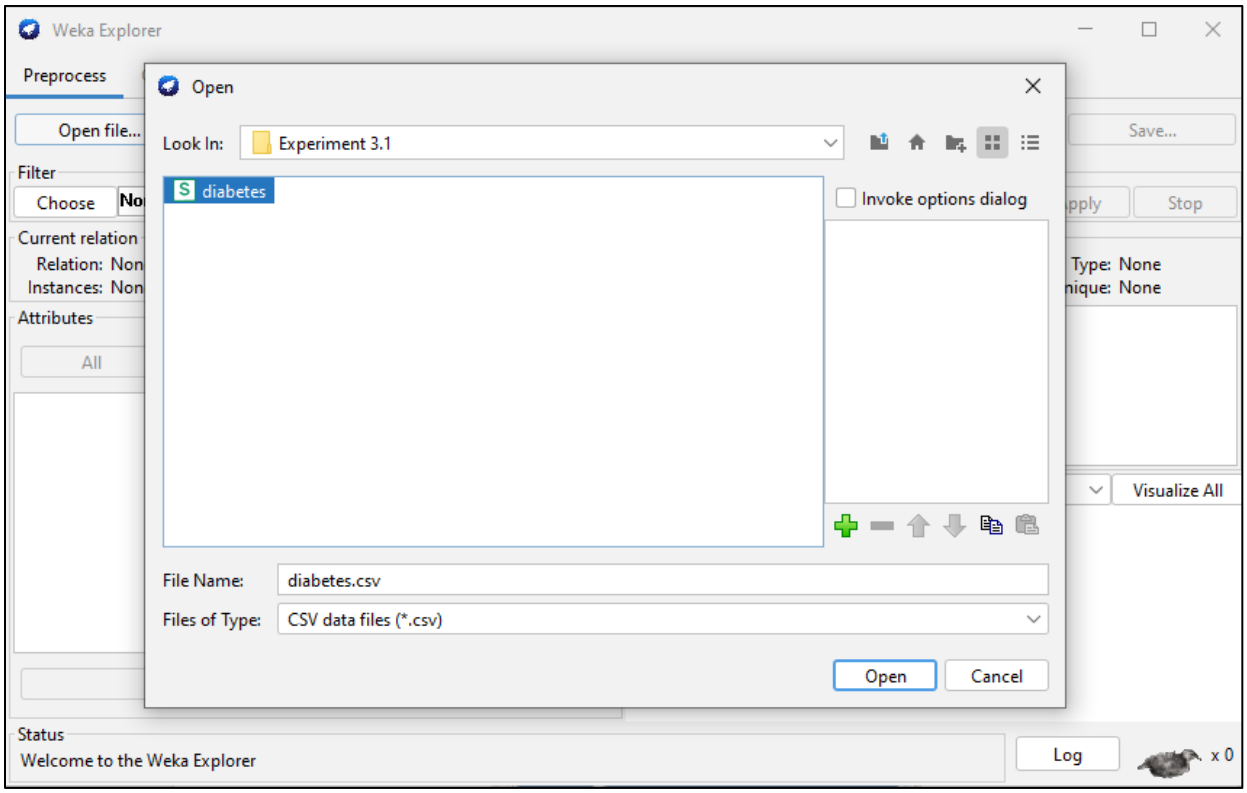
Algorithm/ Steps for Experiment :

Step 1: Download the Diabetes dataset from UCI Machine Learning repository.

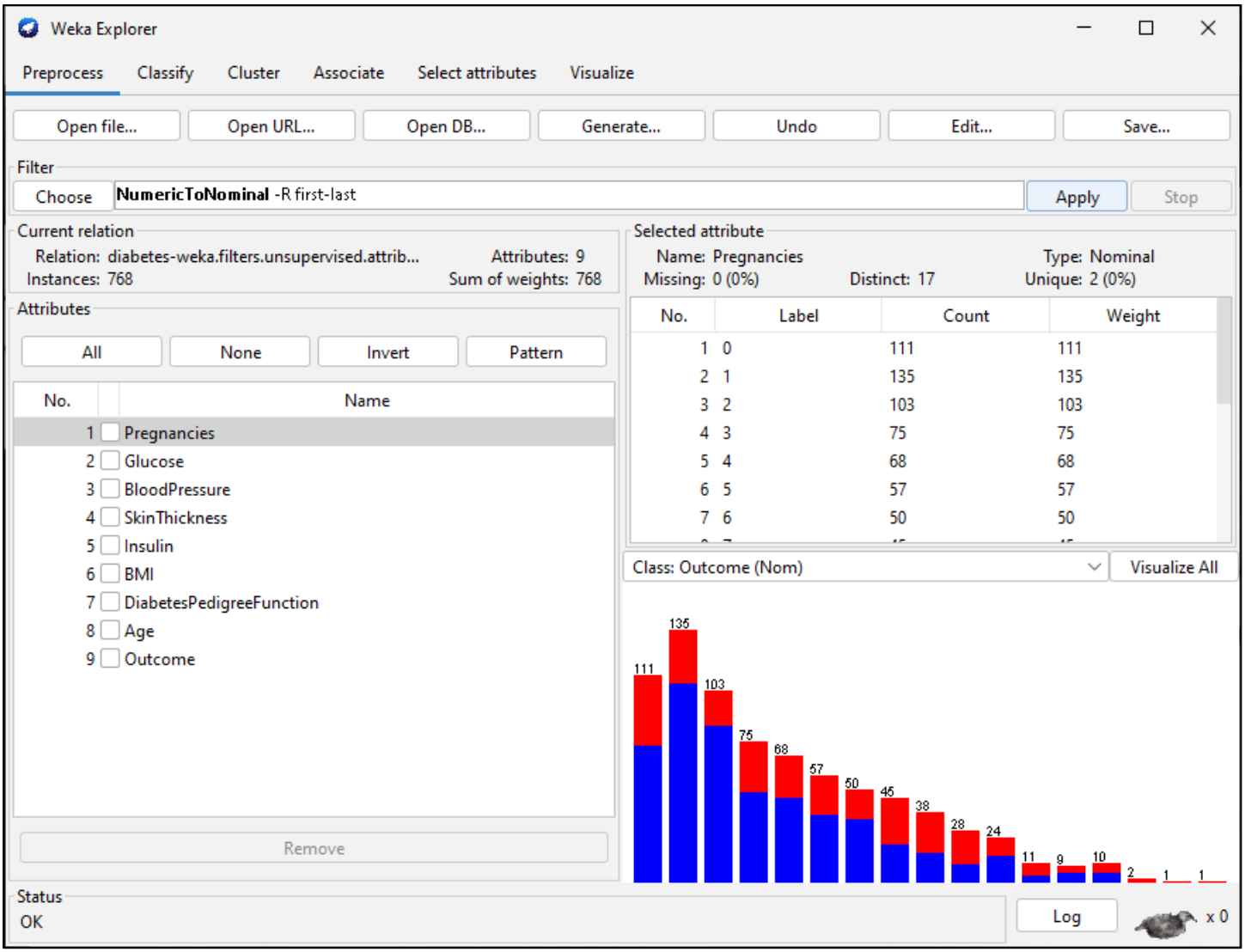
Step 2: Open the WEKA Tool and open the 'Explorer' tab.



Step 3: Click on the ‘Open file’ Option >> Select Diabetes dataset >> Click on Open.

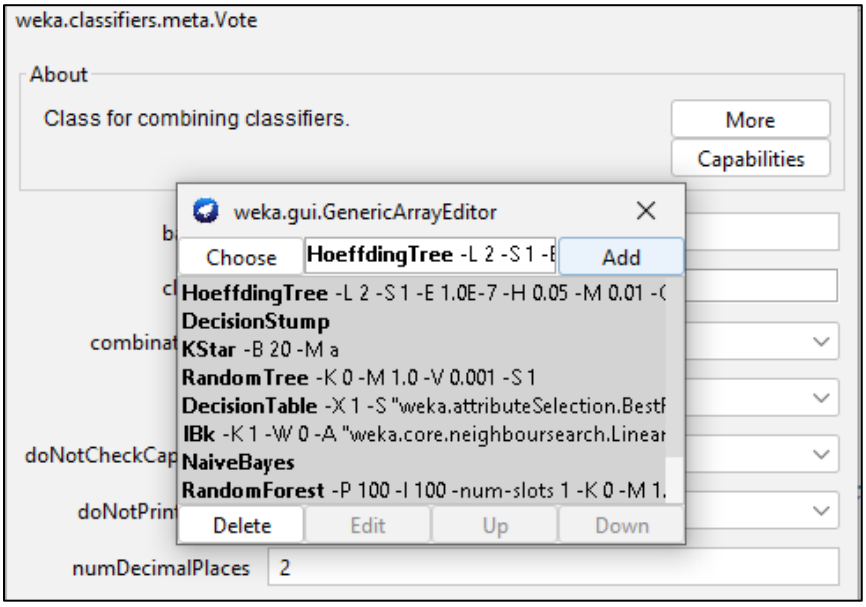


Step 4: Change the dataset from Numeric to Nominal.

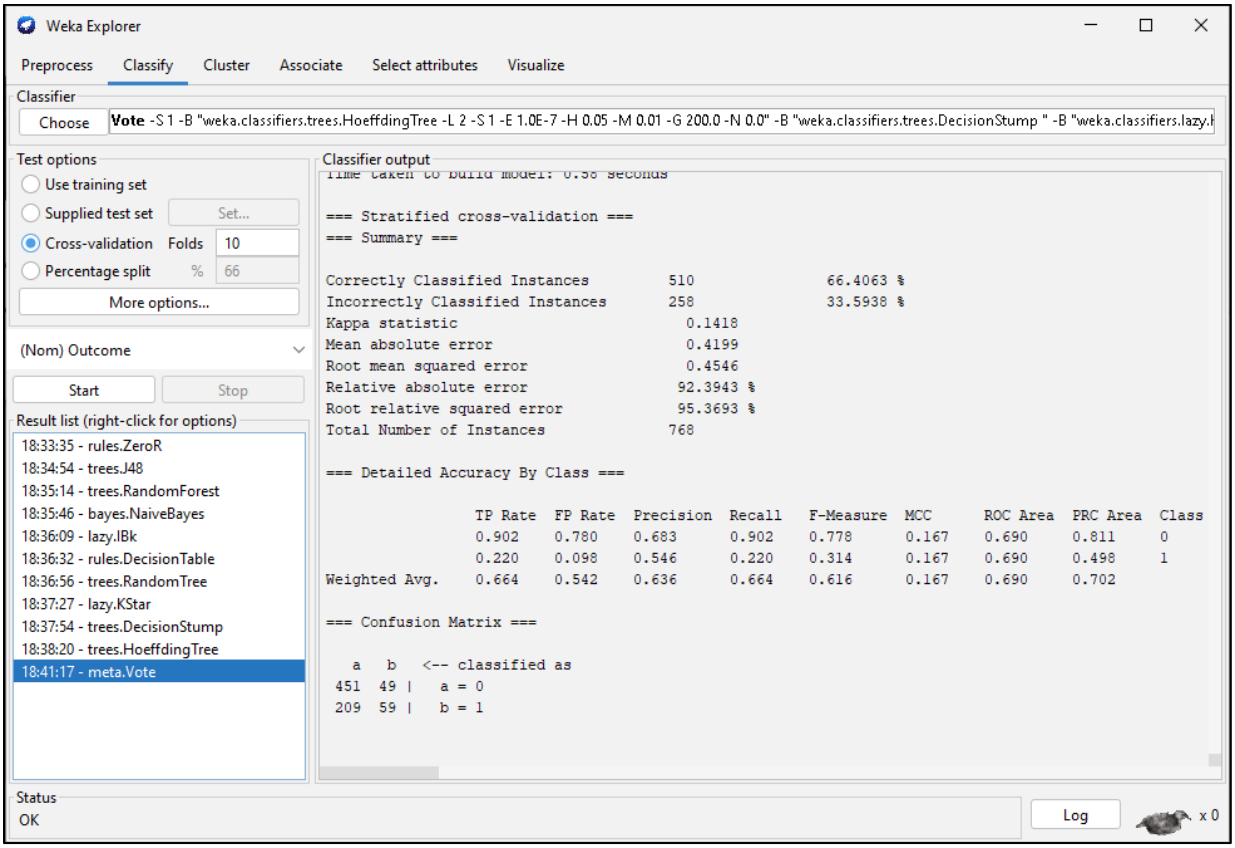


Step 5: Click on the ‘Classify’ Tab >> Choose and select different models from ‘Classifier’ Section.

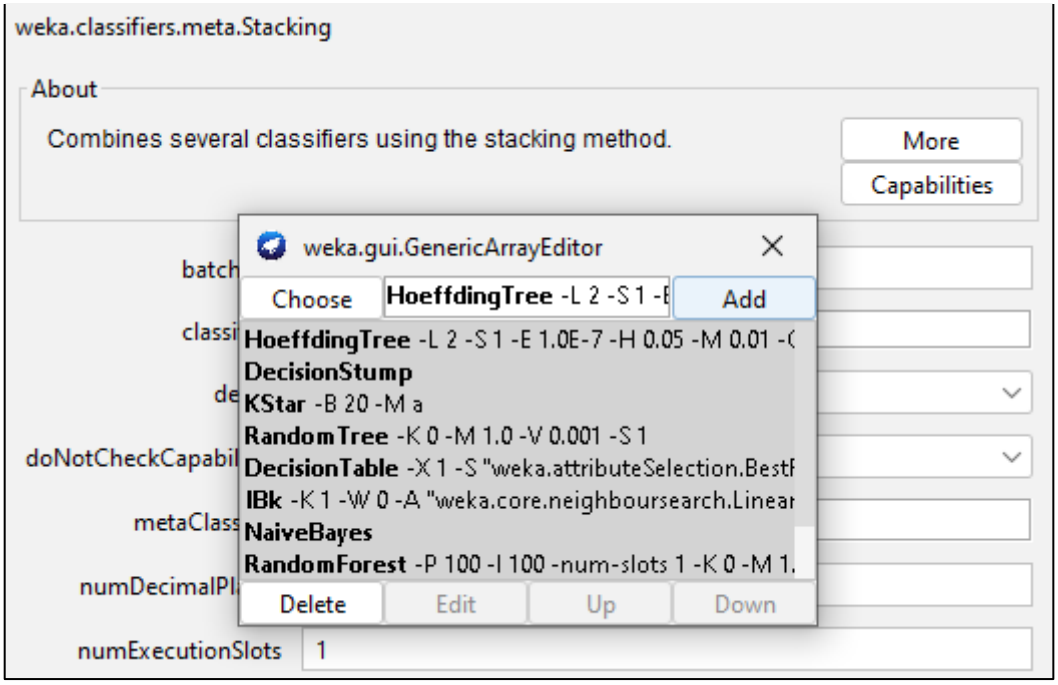
Step 6: Select the “Vote” model for majority voting. Click on the model then click on Classifiers to select 10 different classifier models.



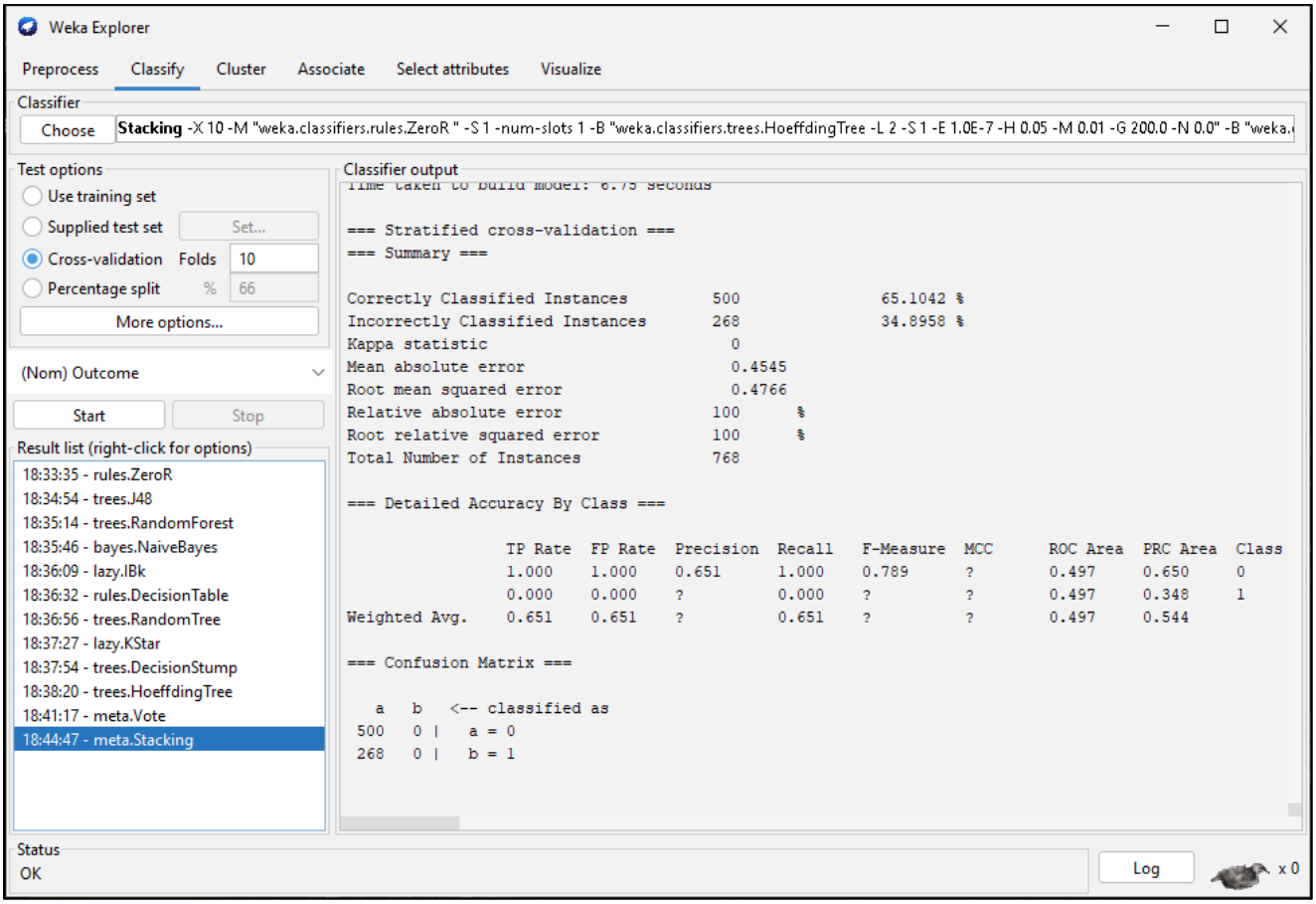
Step 7: Click Start to build the model. Classifier output shows the model evaluation parameters.



Step 8: Select the “Stacking” model for majority voting. Click on the model then click on Classifiers to select 10 different classifier models.



Step 9: Click Start to build the model. Classifier output shows the model evaluation parameters.



Learning outcomes (What I have learnt):

1. I learnt about the WEKA Tool and its applications.
2. I learnt about how to use Explorer Tab in WEKA Tool.
3. I learnt about how to change attributes from Numeric to Nominal.
4. I learnt about how to use the Vote and Stacking method in WEKA Tool.
5. I learnt about how to compare the accuracy of different models.