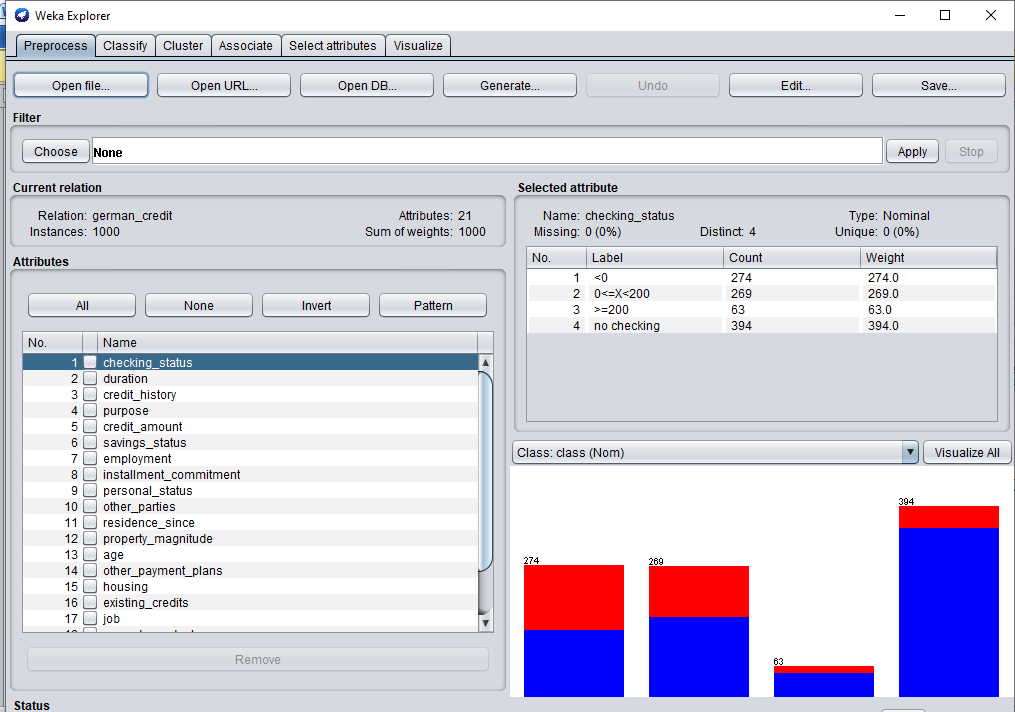
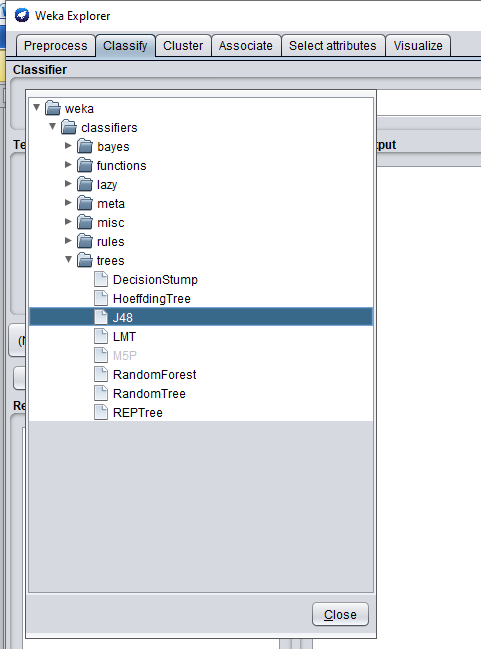
**ASSIGNMENT-2**

**Deriving a Decision Tree from Given Dataset:**

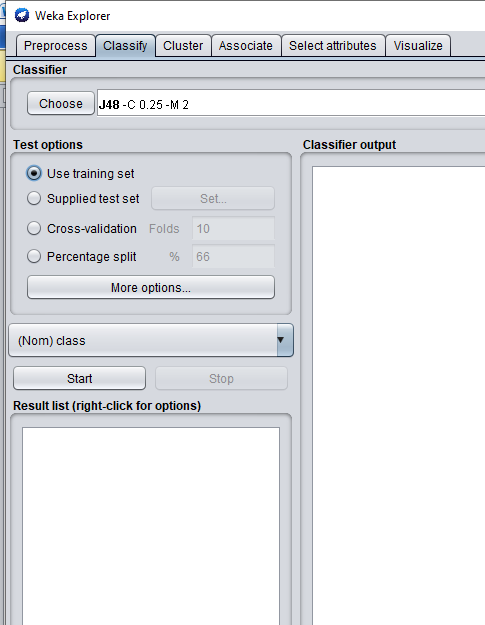
* Open the given Dataset in Weka Here we are considering German Credit Dataset



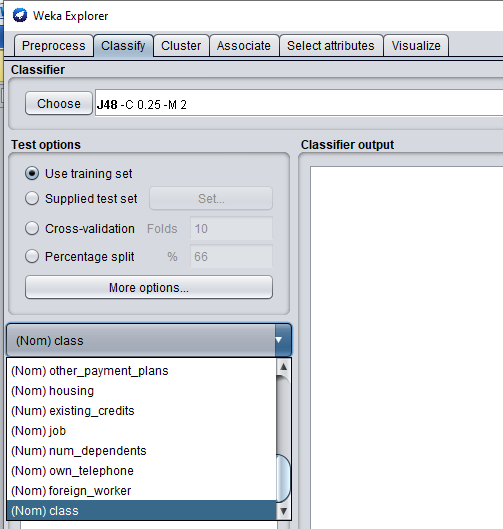
* Click on classify tab and Choose J48 from trees



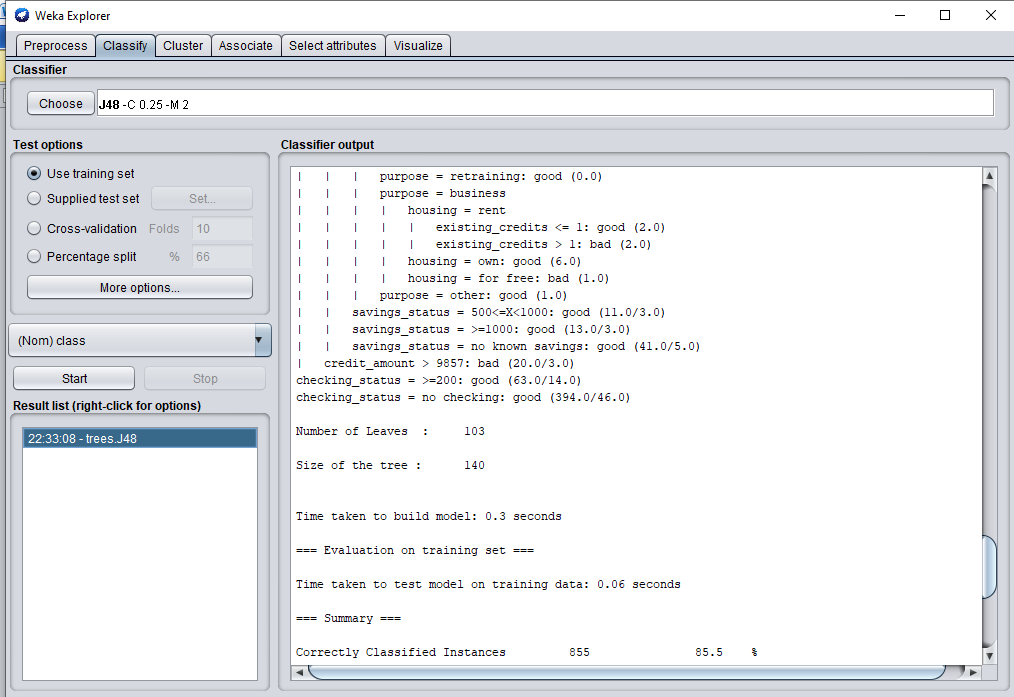
* Choose the Use training setfrom Test options



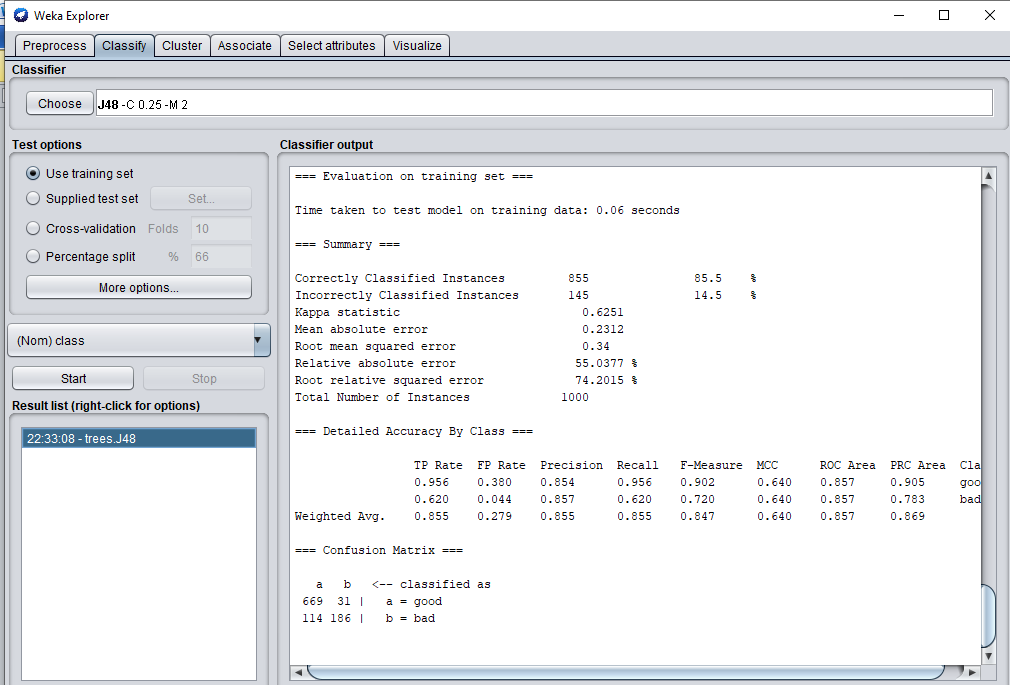
* Now, choose the attribute **class** from the dropdown



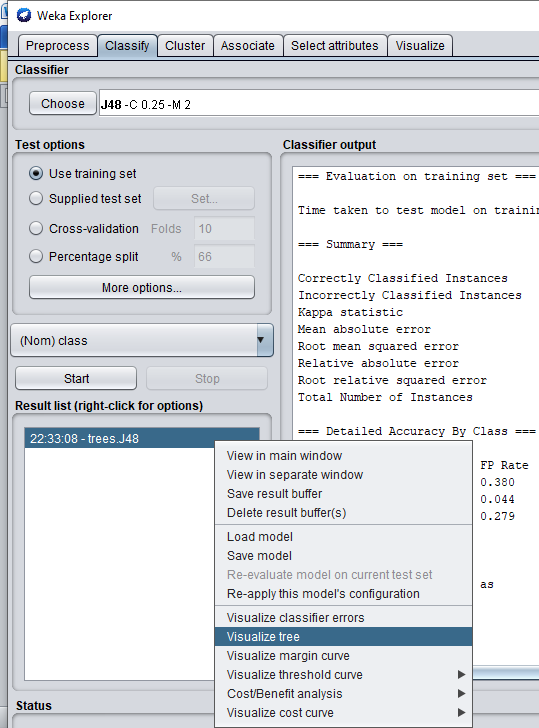
* Next click on Start. We will get Output as below:



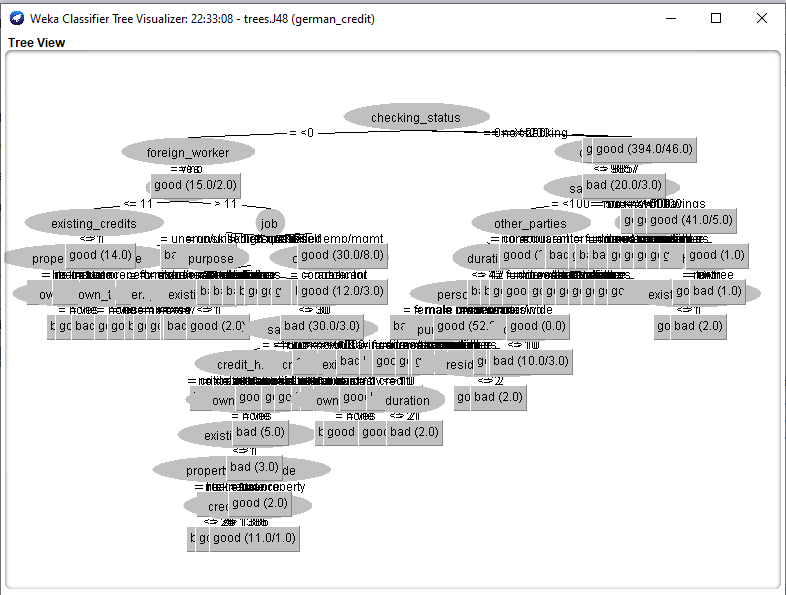
* Number of leaves = 103
* Number of tree = 140
* Time Taken to build Model = 0.3 sec
* We also get the Confusion Matrix as below:



* Right click on the option in the Result list and select the **visualize tree** option.



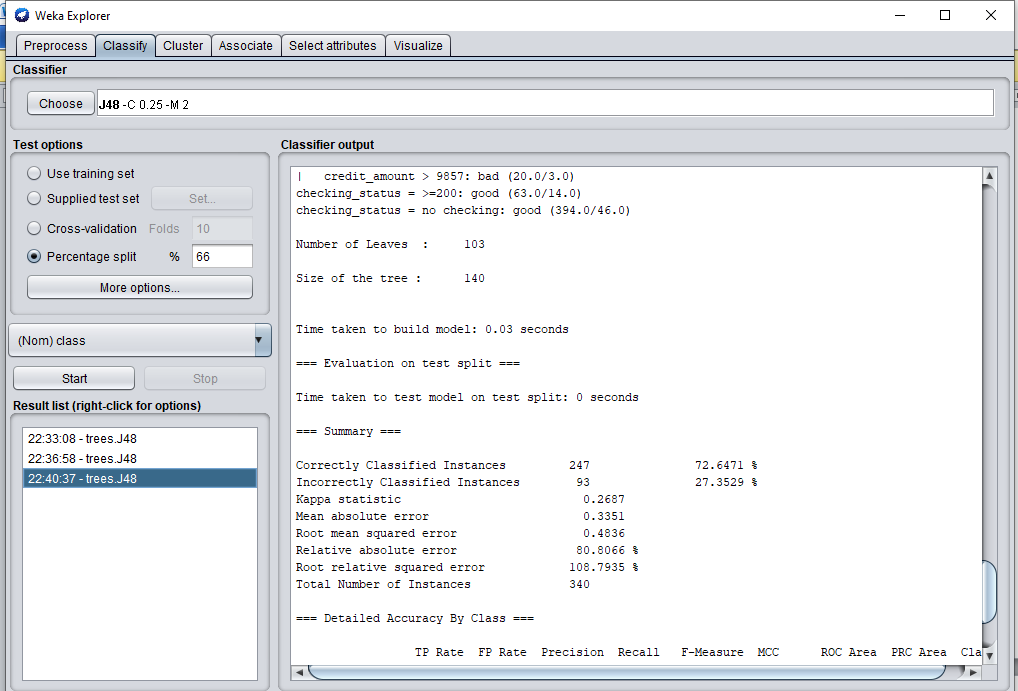
* The Output will be:



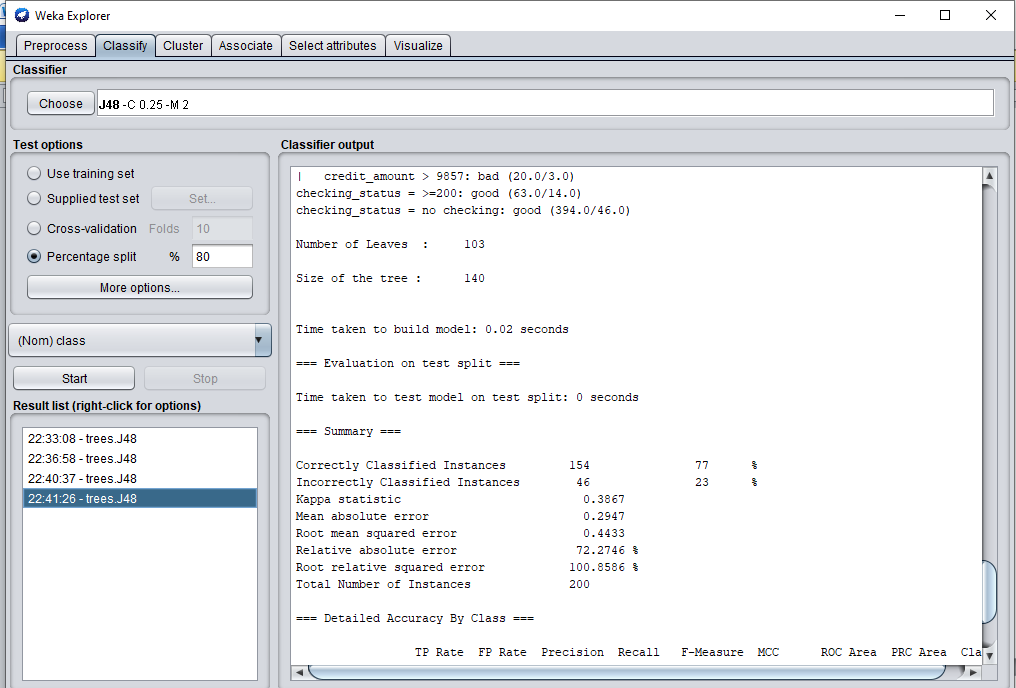
**VARYING THE PERCENTAGE SPLIT FOR ACCURACY:**

1. **FOR J48 CLASSIFIER:**

* Accuracy when Percentage split is 66%

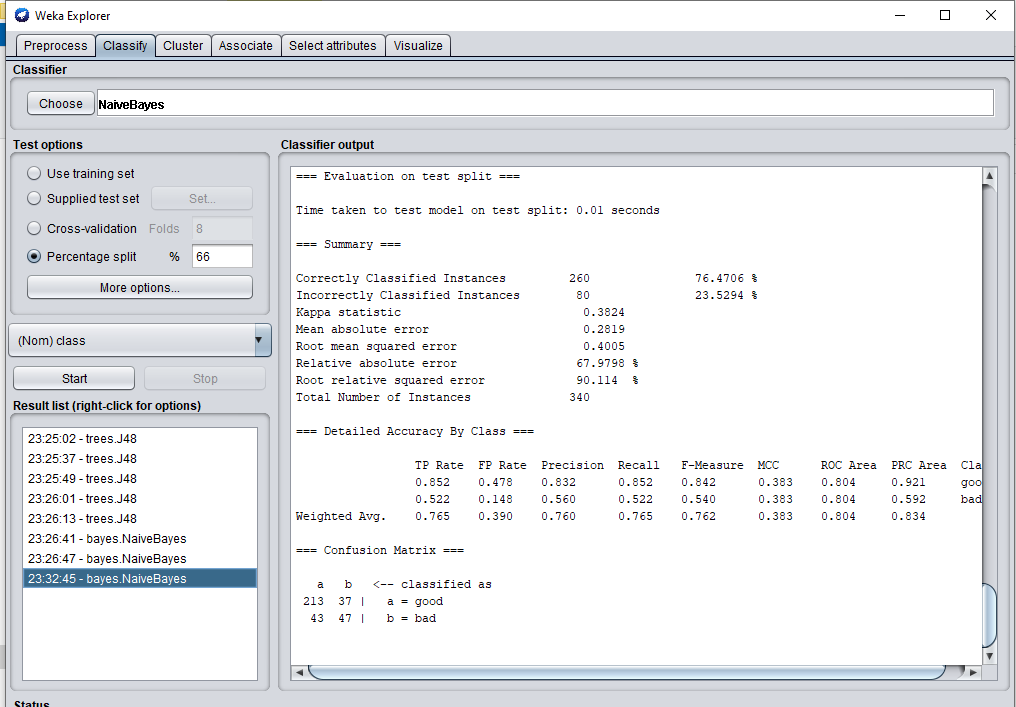
****

* Accuracy when Percentage split is 80%

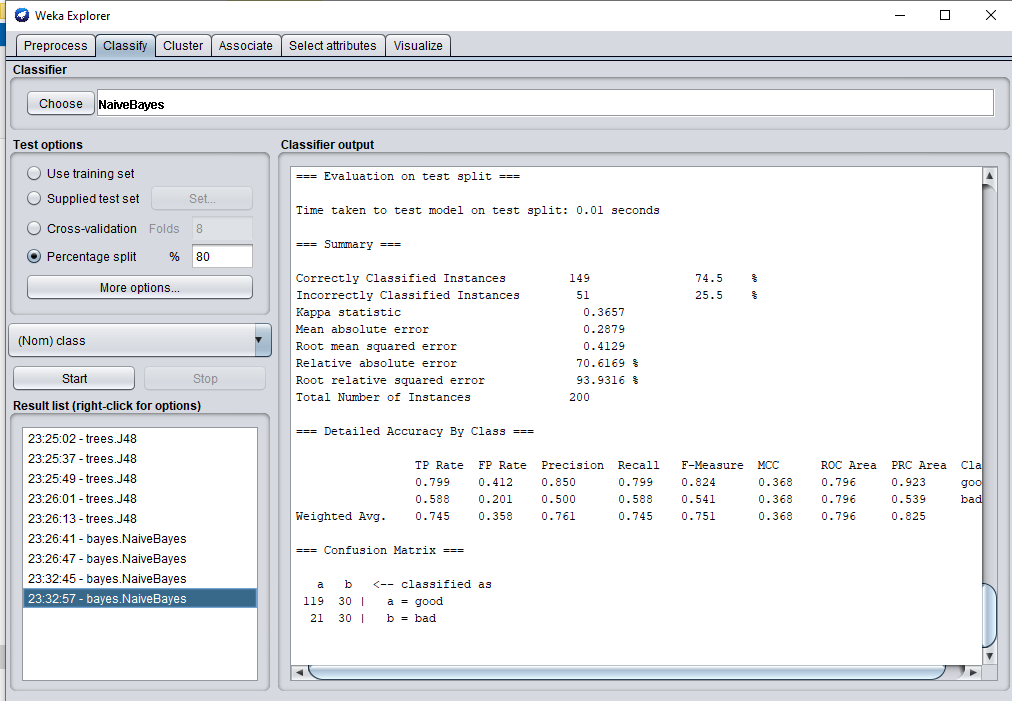


1. **FOR NAIVEBAYES CLASSIFIER:**

* Accuracy when Percentage split is 66%



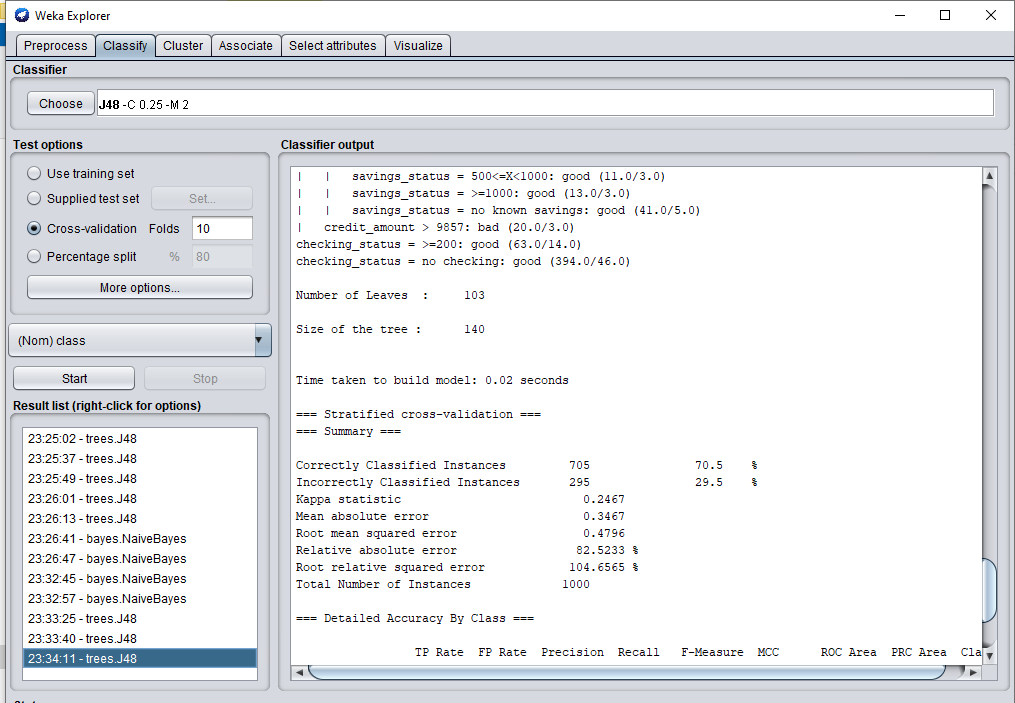
* Accuracy when Percentage split is 80%



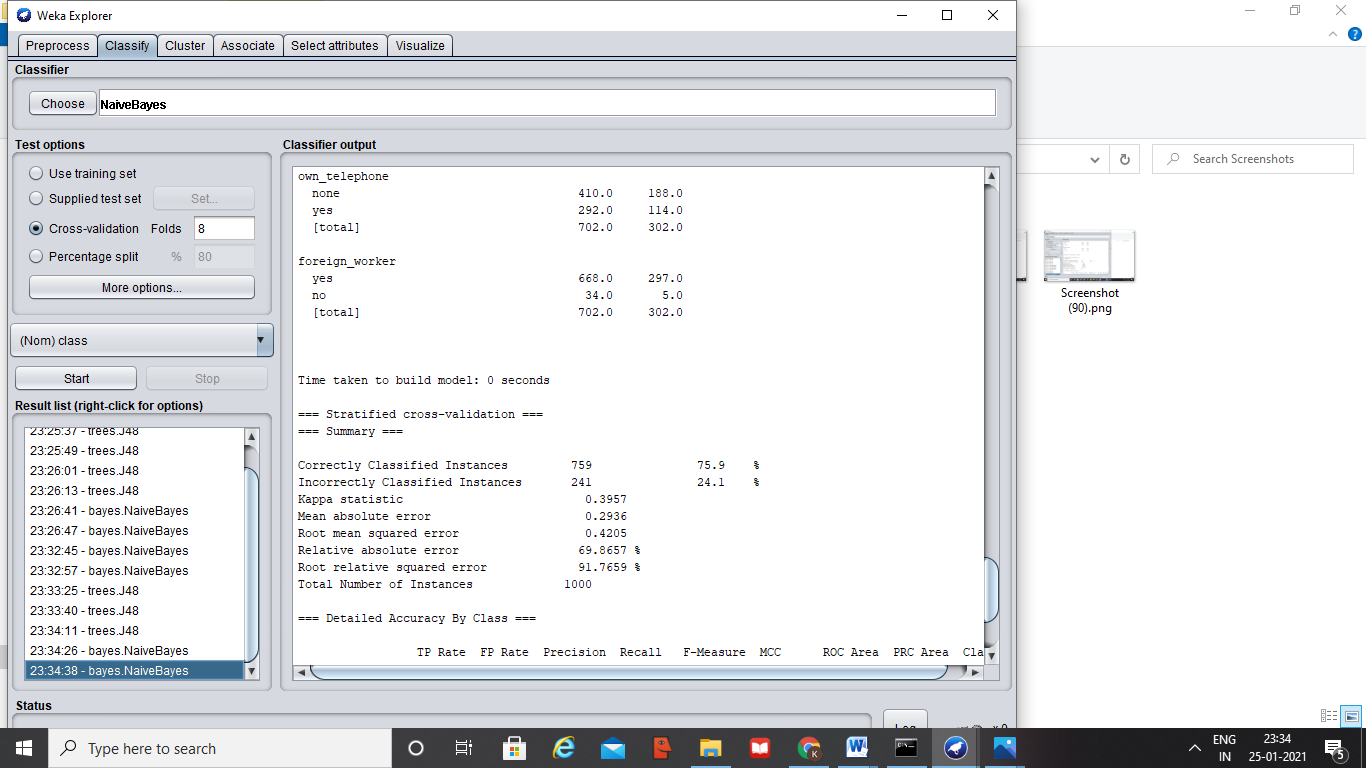
**VARYING THE CROSS VALIDATIONS FOR ACCURACY:**

1. **FOR J48 CLASSIFIER:**

* Accuracy when Cross – validation is 10

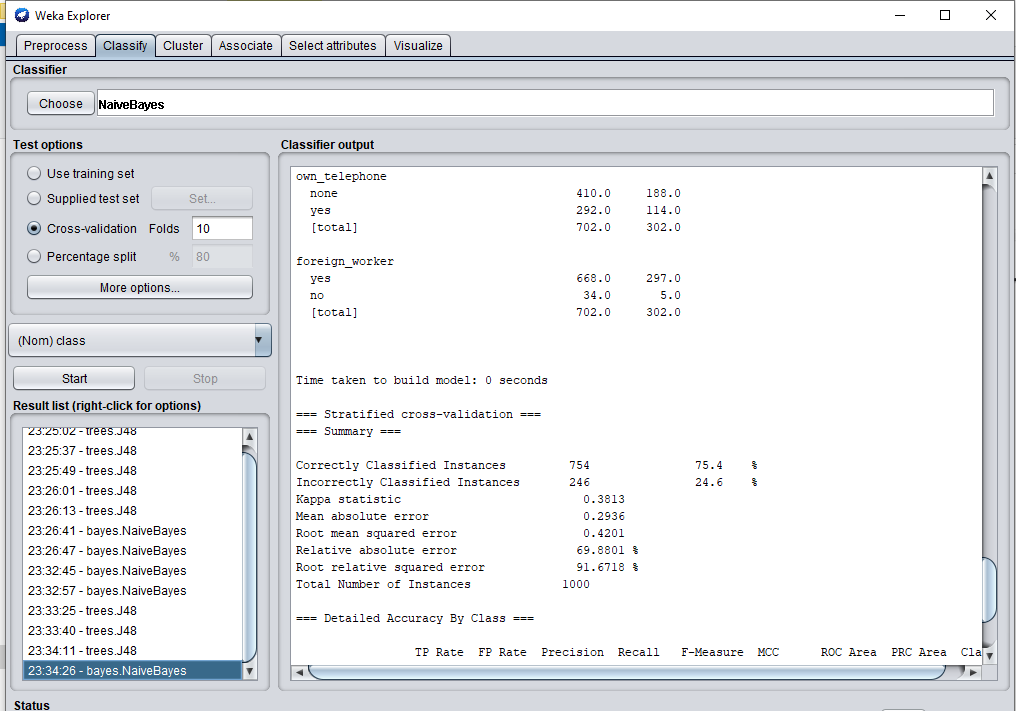
****

* Accuracy when Cross – validation is 8



1. **FOR NAIVEBAYES CLASSIFIER:**

* Accuracy when Cross – validation is 10



* Accuracy when Cross – validation is 8

