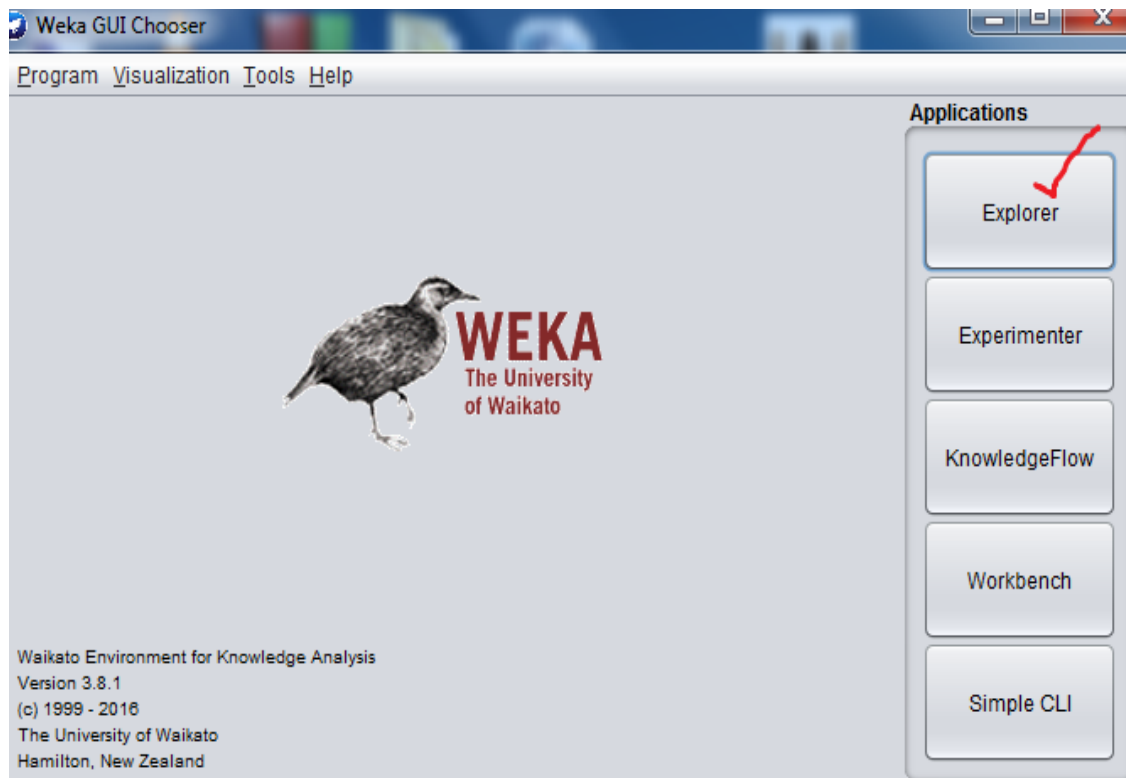


## Manual to use Weka

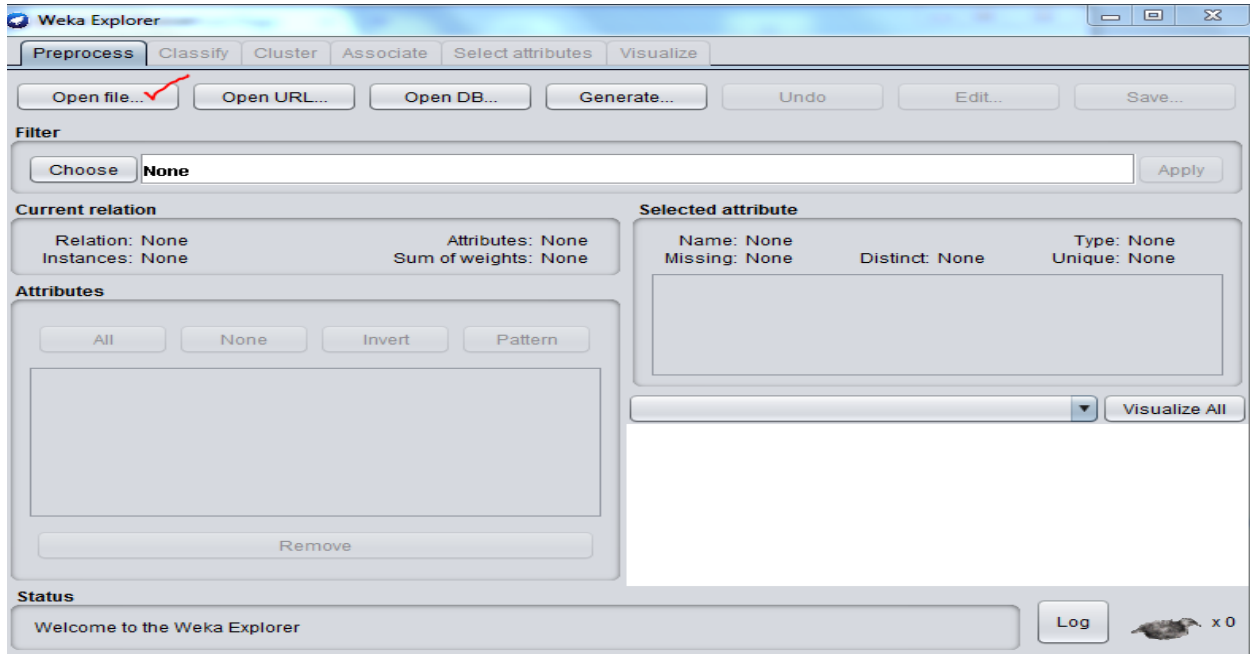
Main Graphical User Interface of Weka.



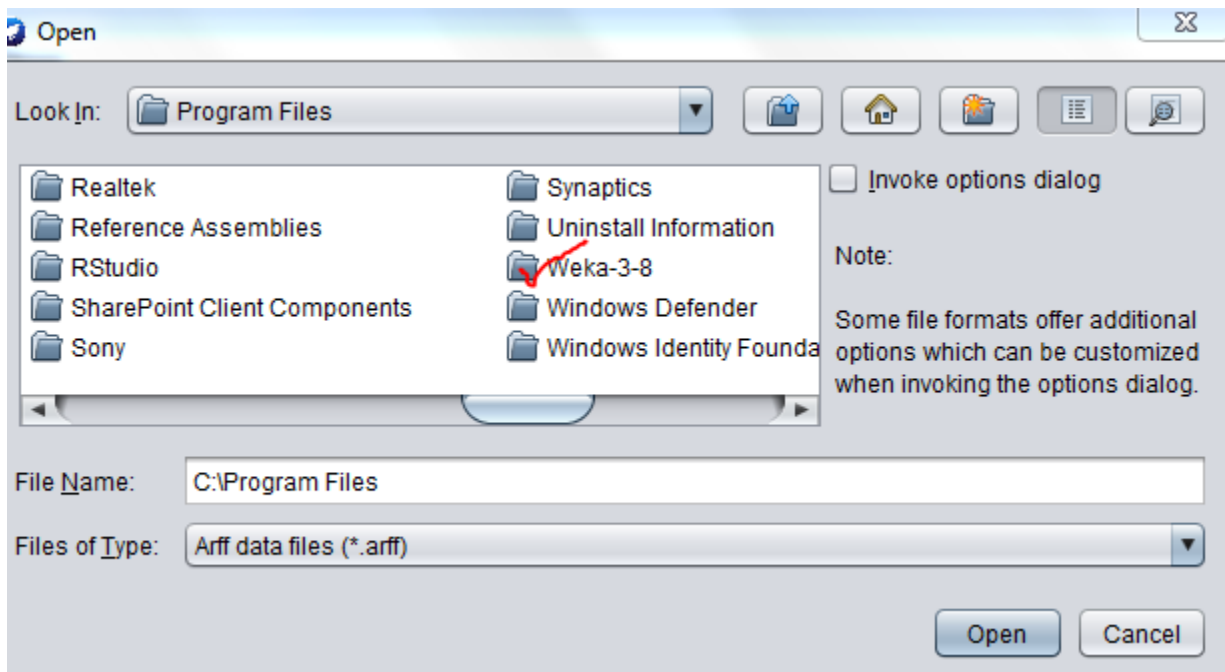
**Step 1:** Select **Explorer** Option.



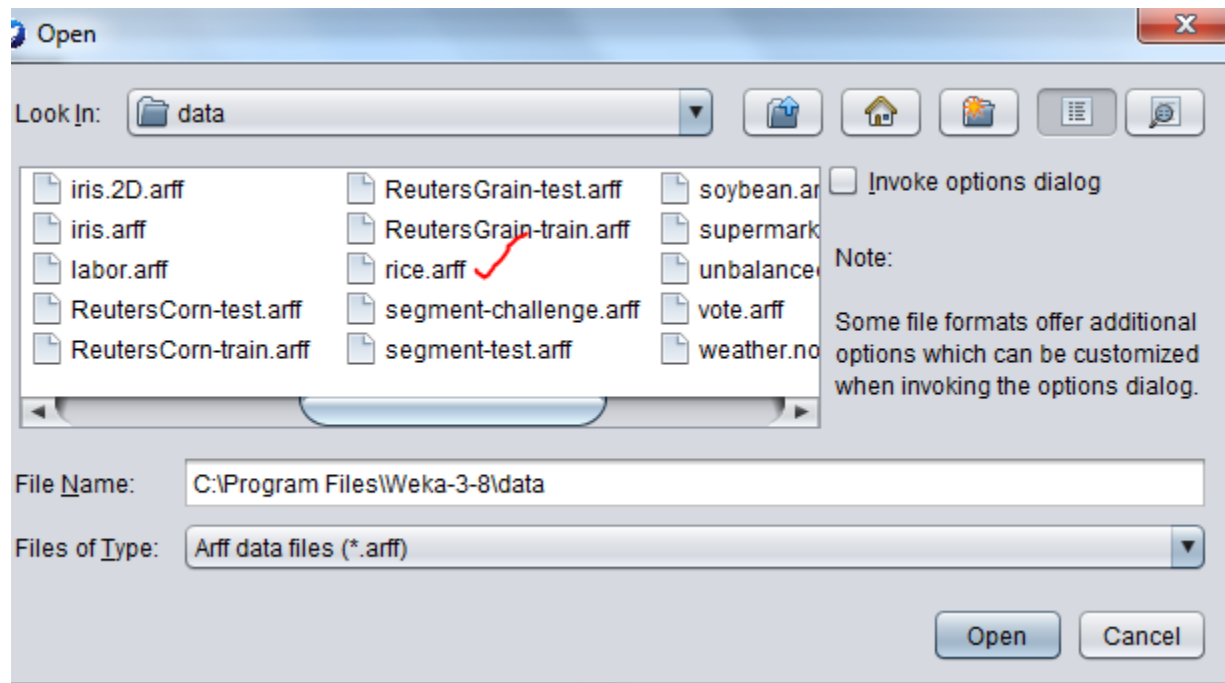
**Step 2:** Click on **Open File** Option.



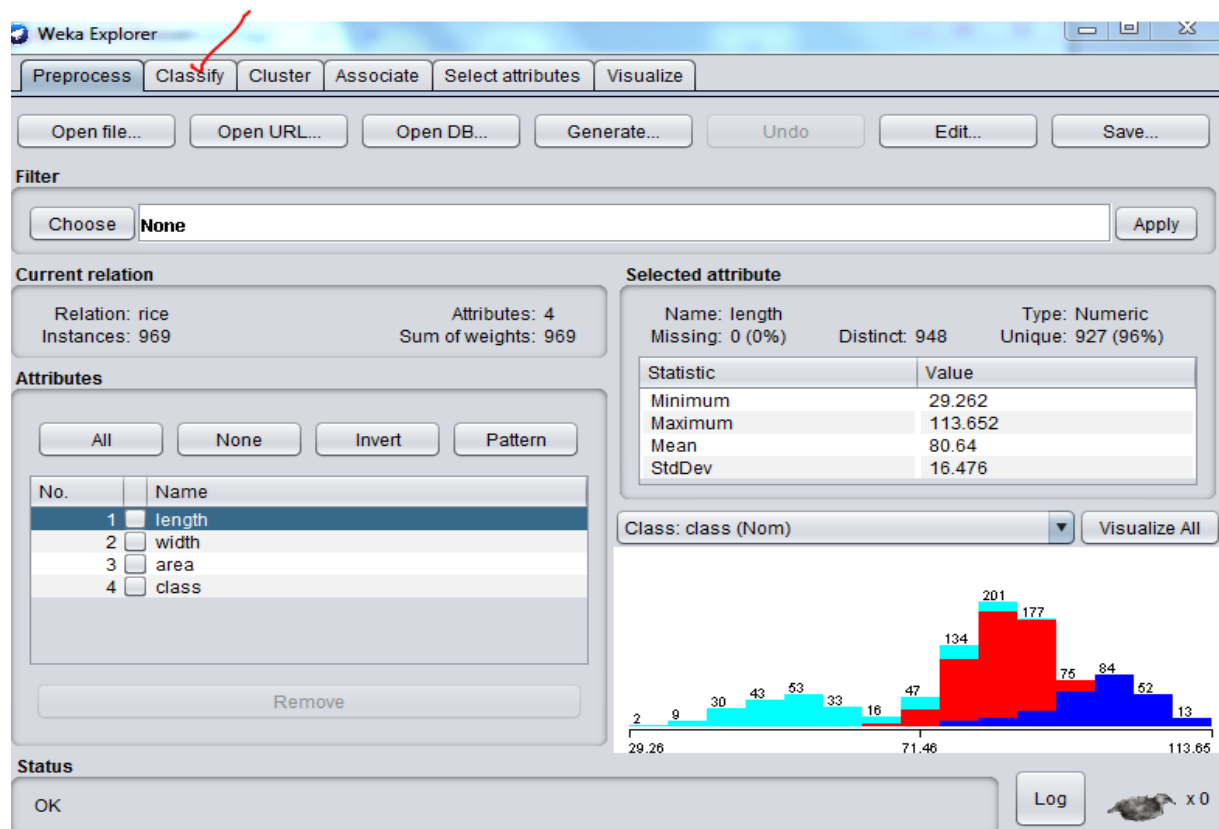
**Step 3:** Open your drive where your **Weka** software is placed.



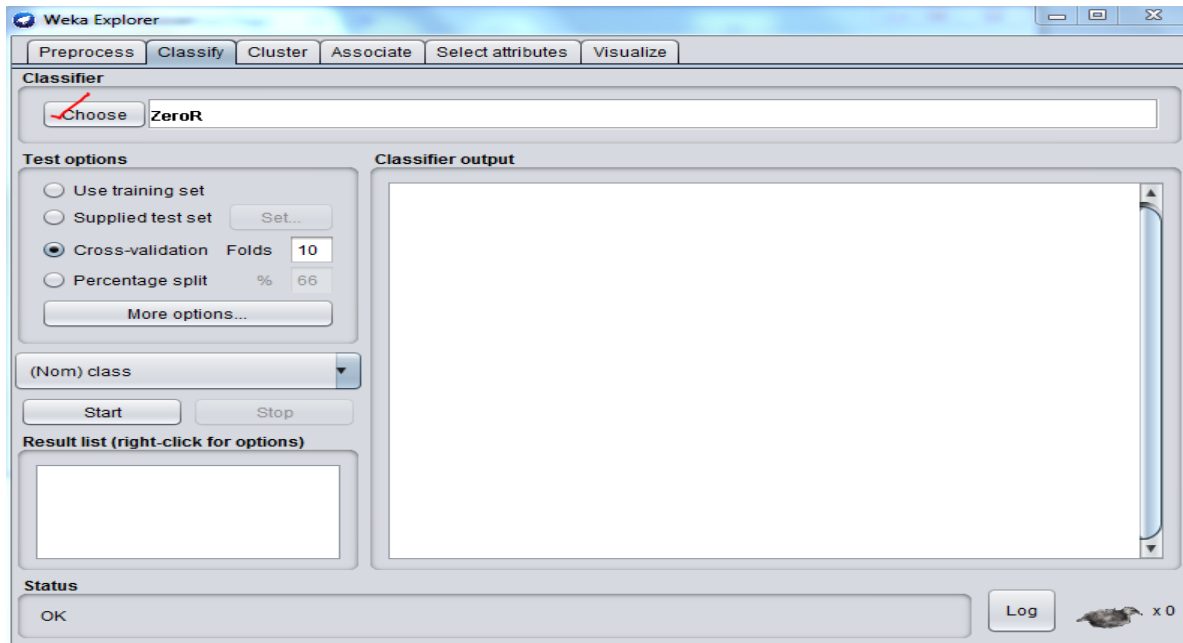
**Step 4:** After opening weka then open **data** folder where your dataset file had been copied. Open your dataset file e.g. **rice.arff**.



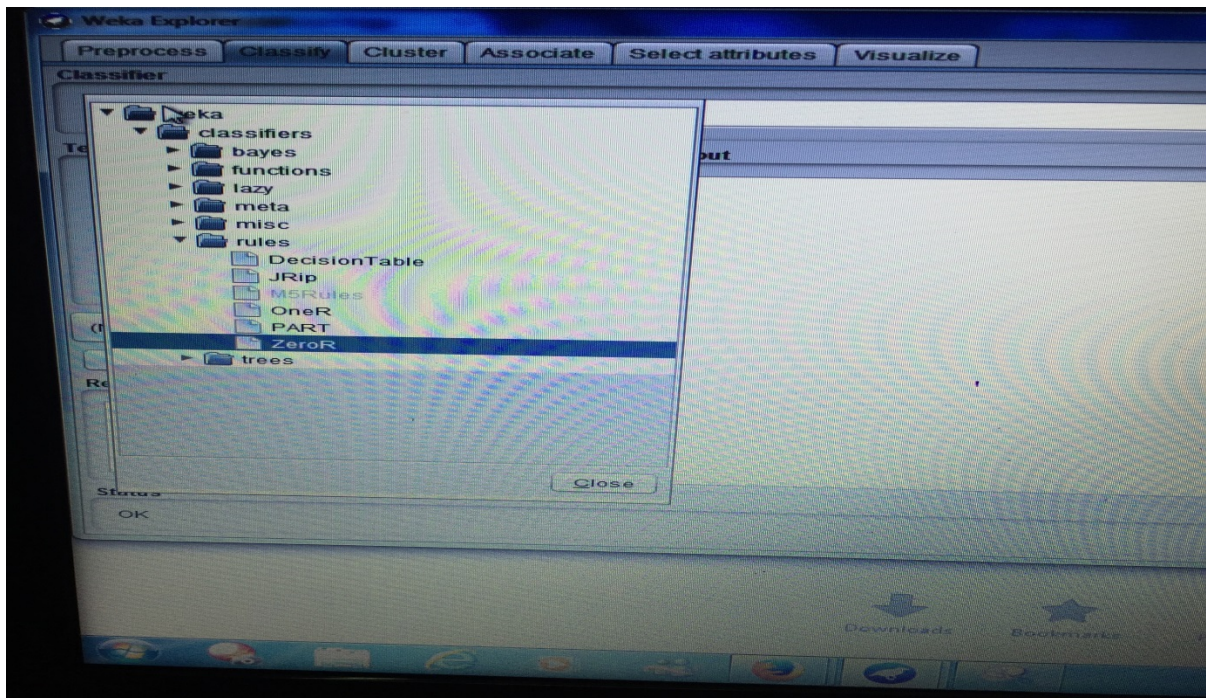
**Step 5:** Click on **Classify** option.



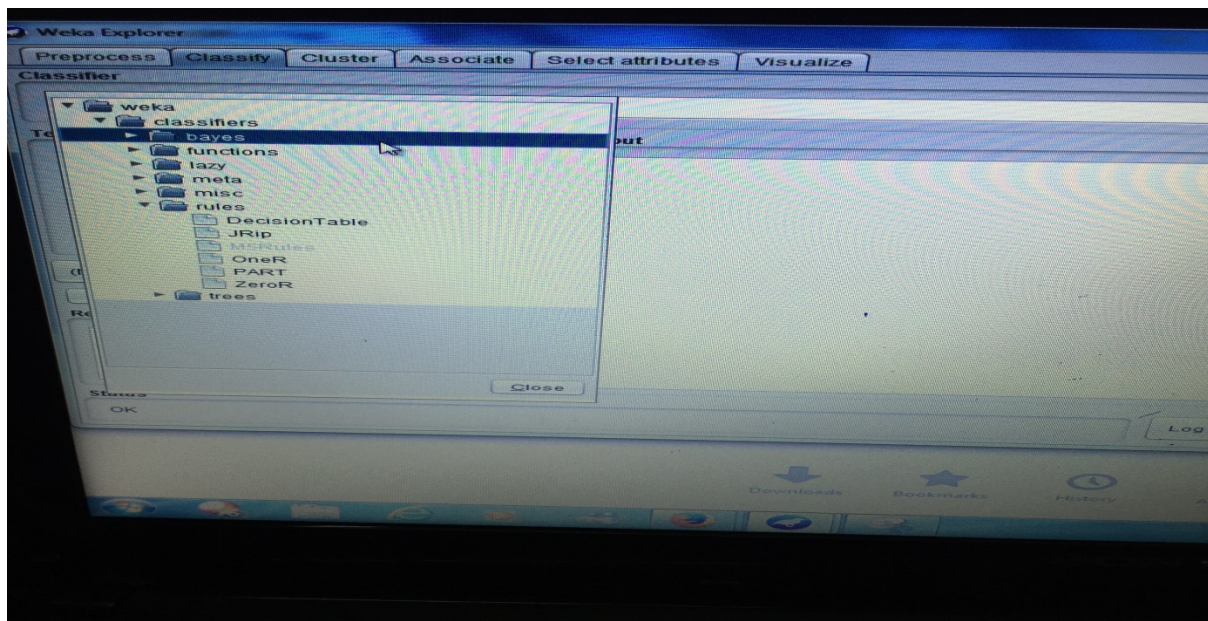
**Step 6:** Click on **CHOOSE** option.



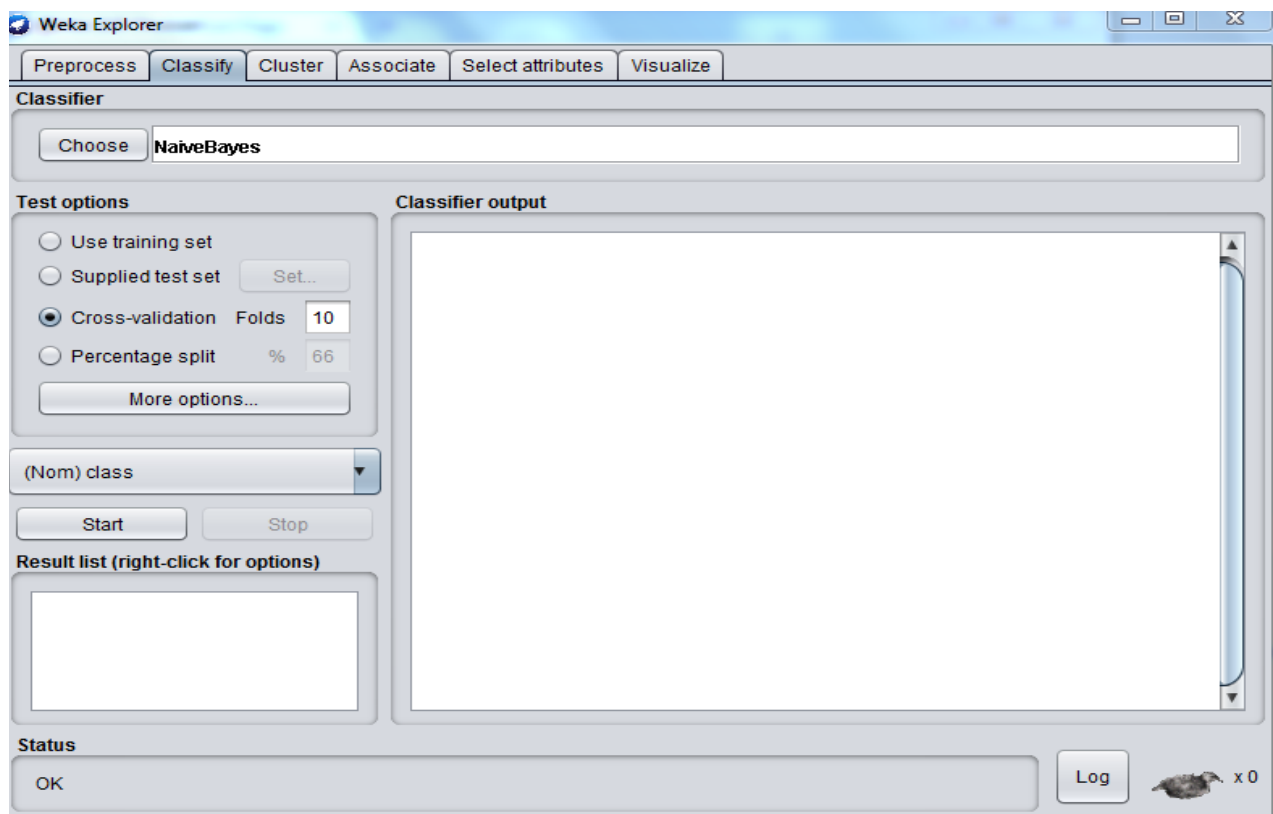
**Step 7:** We get the list of classifier folder.



**Step 8:** We had selected bayes

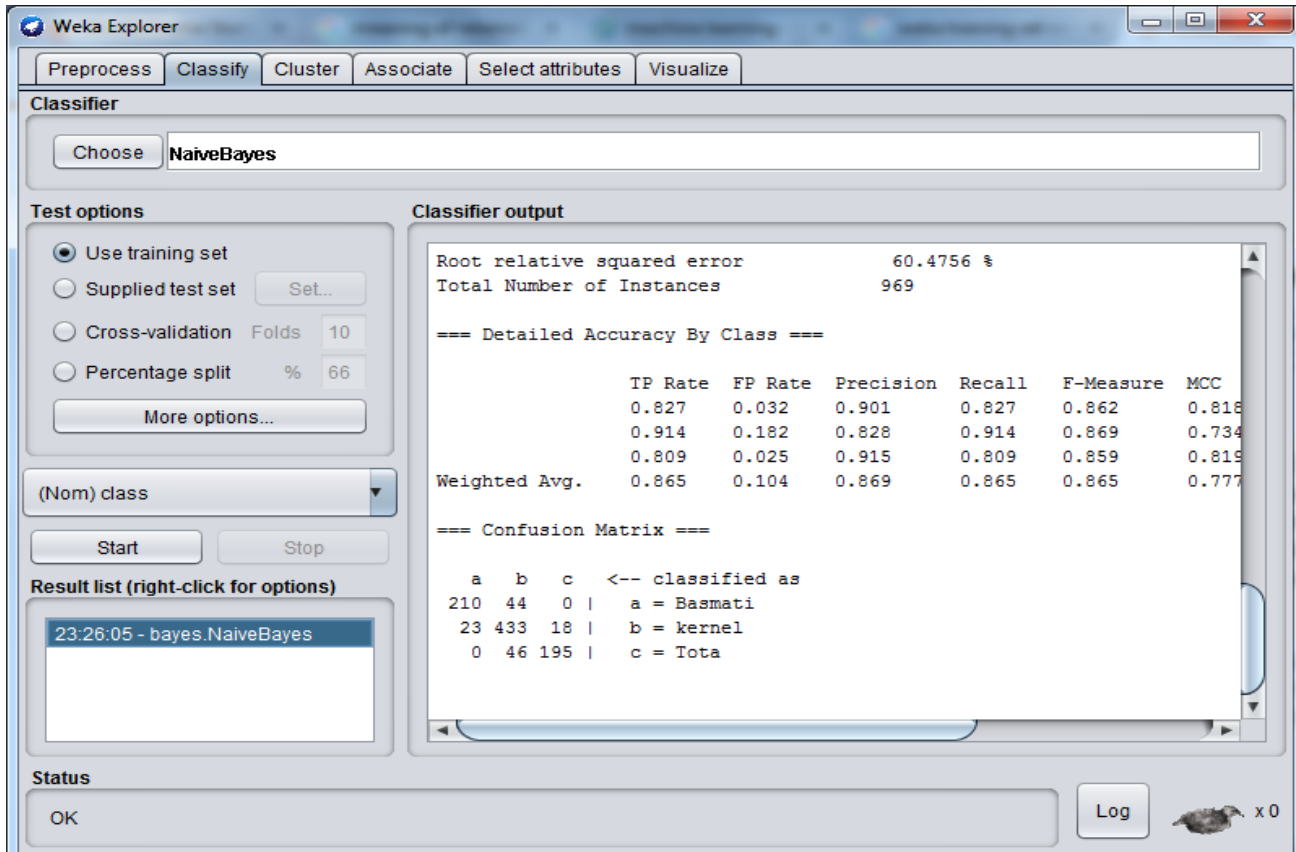


**Step 9:** After selecting any classifier folders. We get options of different types of that classifier which we had selected previously. Example we had selected bayes previously .Now we had selected naïve bayes as its type.





**Step 10:** For test options we had selected **Use training set** and get the result in form of percentage accuracy in below screen shot.



The screenshot shows the Weka Explorer interface with the NaiveBayes classifier selected. The 'Test options' section has 'Use training set' selected. The 'Classifier output' pane displays the following results:

Root relative squared error 60.4756 %  
Total Number of Instances 969

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC
0	0.827	0.032	0.901	0.827	0.862	0.818
1	0.914	0.182	0.828	0.914	0.869	0.734
2	0.809	0.025	0.915	0.809	0.859	0.819
Weighted Avg.	0.865	0.104	0.869	0.865	0.865	0.777

=== Confusion Matrix ===

a	b	c	<-- classified as
210	44	0	a = Basmati
23	433	18	b = kernel
0	46	195	c = Tota

The 'Result list' shows '23:26:05 - bayes.NaiveBayes'. The 'Status' bar at the bottom indicates 'OK'.

**Step 11:** For test options we had selected **Supplied test set** and get the results in from of percentage accuracy in below screen shot.

Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier

Choose NaiveBayes

Test options

☐ Use training set

☒ Supplied test set Set...

☐ Cross-validation Folds 10

☐ Percentage split % 66

More options...

(Nom) class

Start Stop

Result list (right-click for options)

23:26:05 - bayes.NaiveBayes

23:27:47 - bayes.NaiveBayes

Classifier output

Root relative squared error 60.4756 %

Total Number of Instances 969

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC
	0.827	0.032	0.901	0.827	0.862	0.818
	0.914	0.182	0.828	0.914	0.869	0.734
	0.809	0.025	0.915	0.809	0.859	0.819
Weighted Avg.	0.865	0.104	0.869	0.865	0.865	0.777

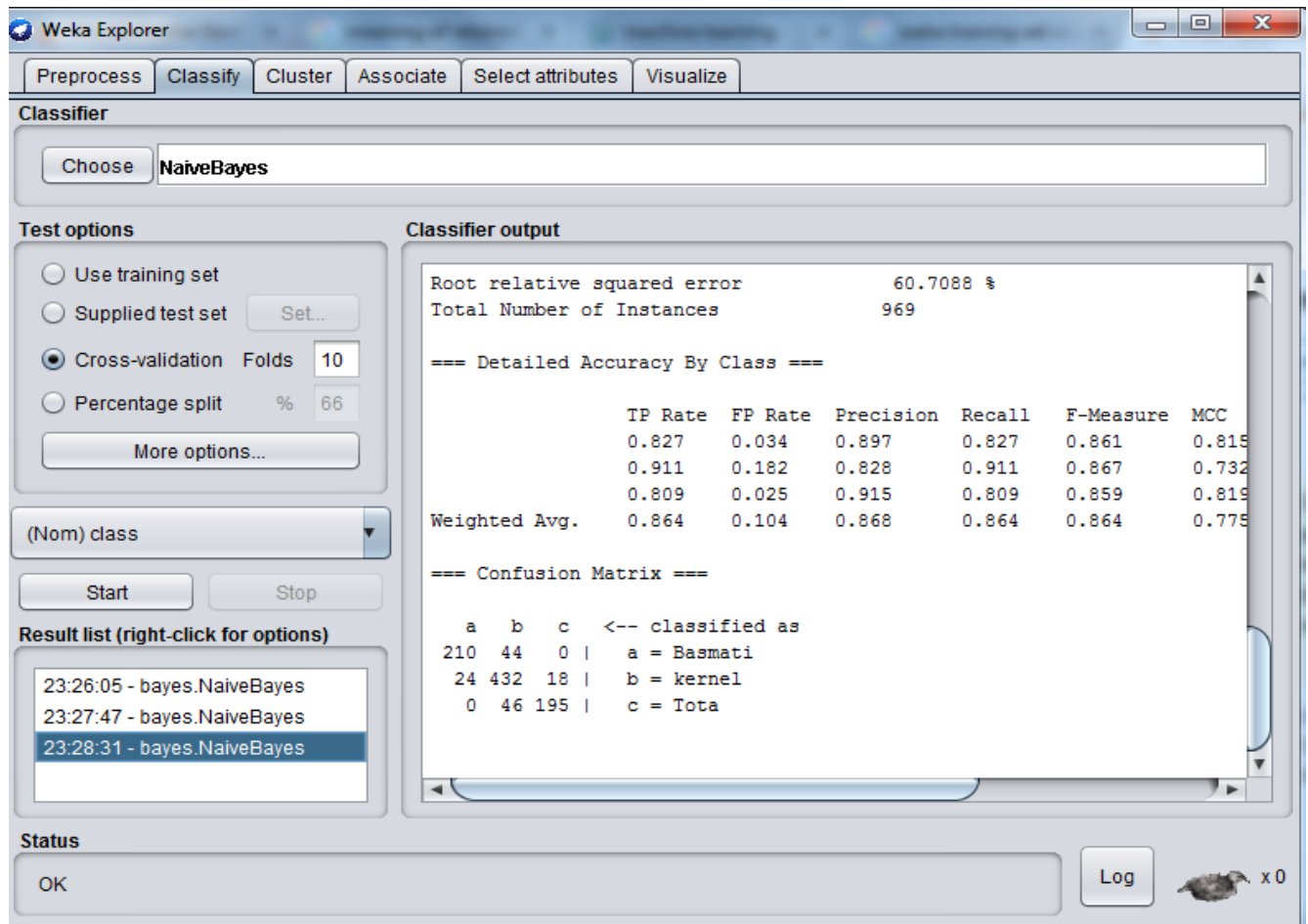
=== Confusion Matrix ===

a	b	c	<-- classified as
210	44	0	a = Basmati
23	433	18	b = kernel
0	46	195	c = Tota

Status

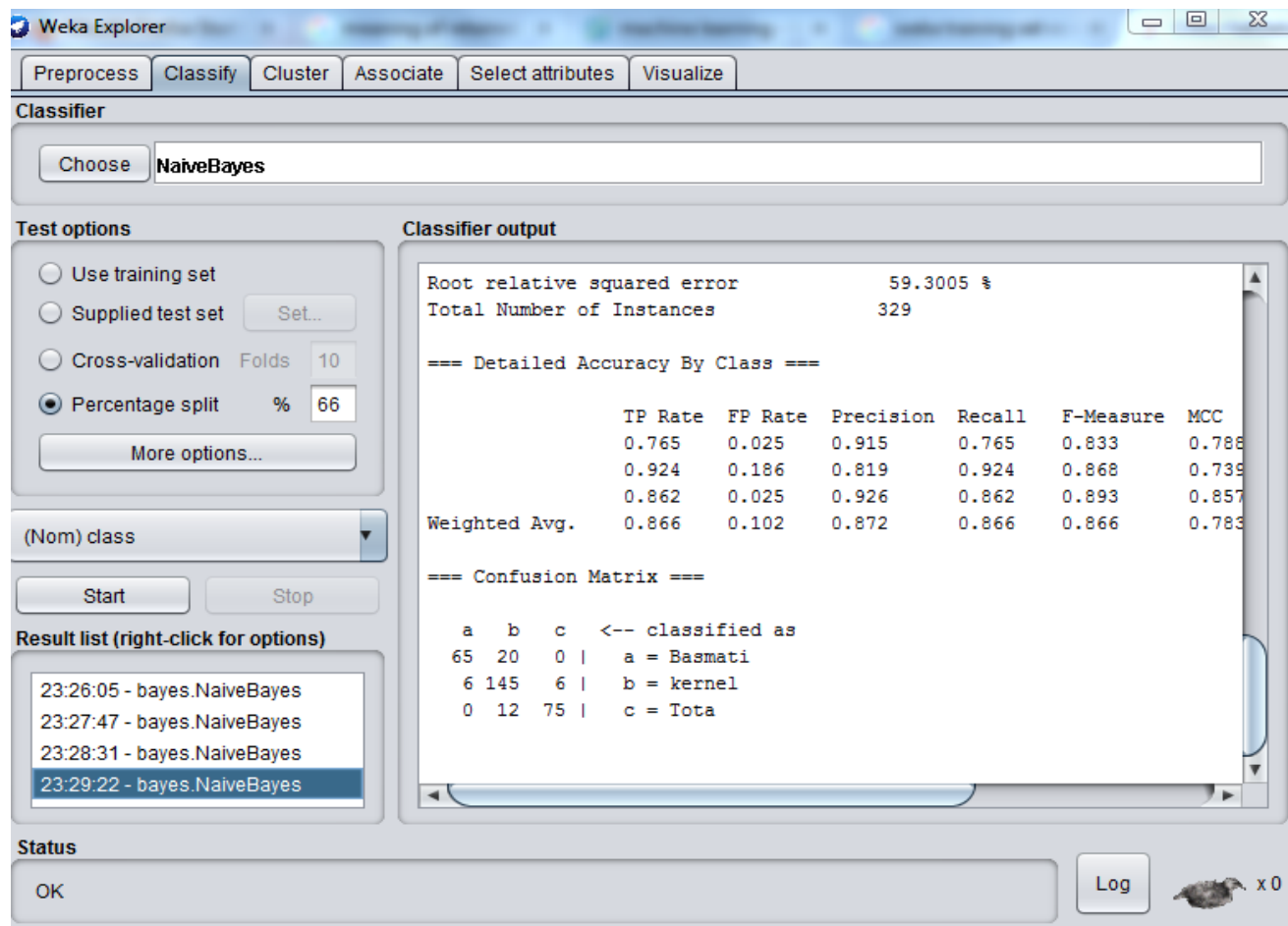
OK Log x 0

**Step 12:** For test option we had selected **Cross validation** options. And its complete results with percentage accuracy are below in screen shot.

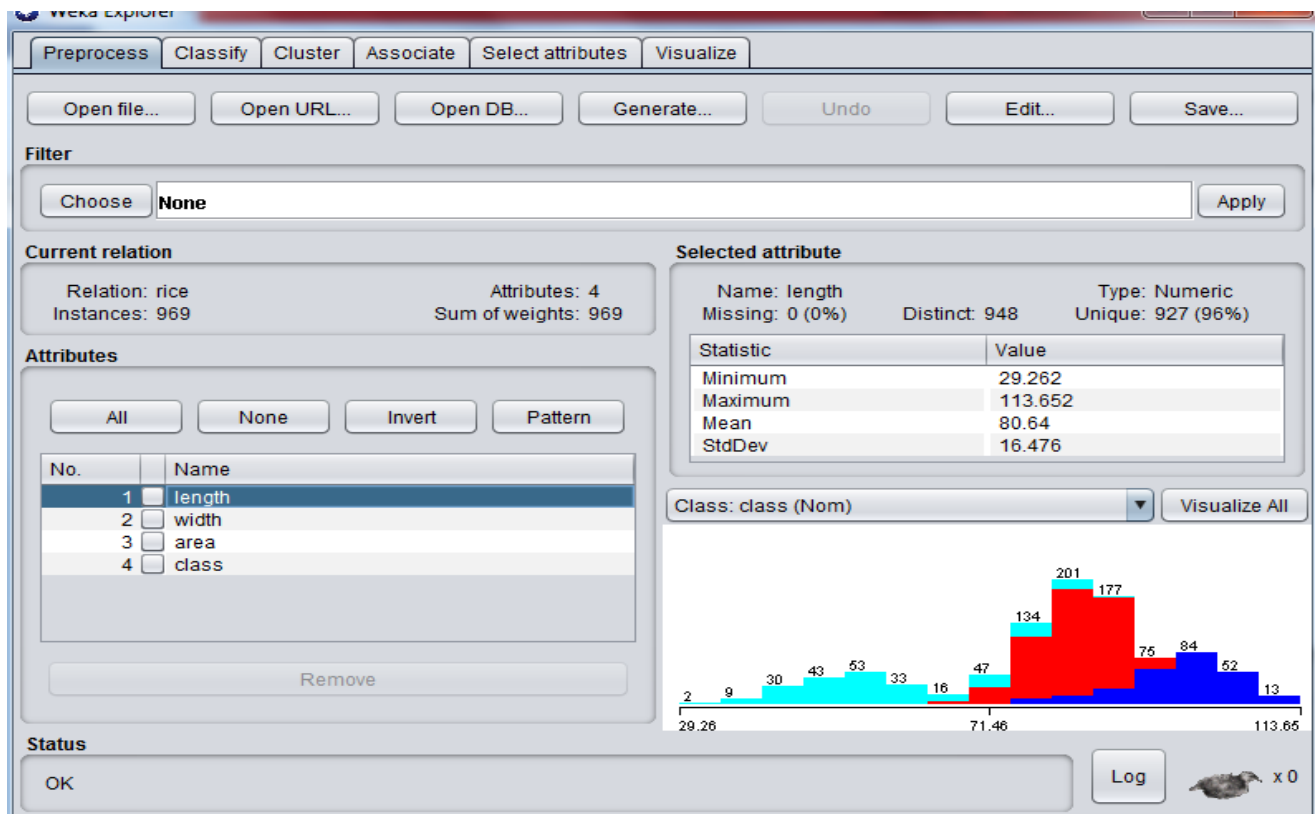


**Step 13:** For test option we had selected **Percentage splits** and percentage accuracy for rice dataset is below in the screen shot.

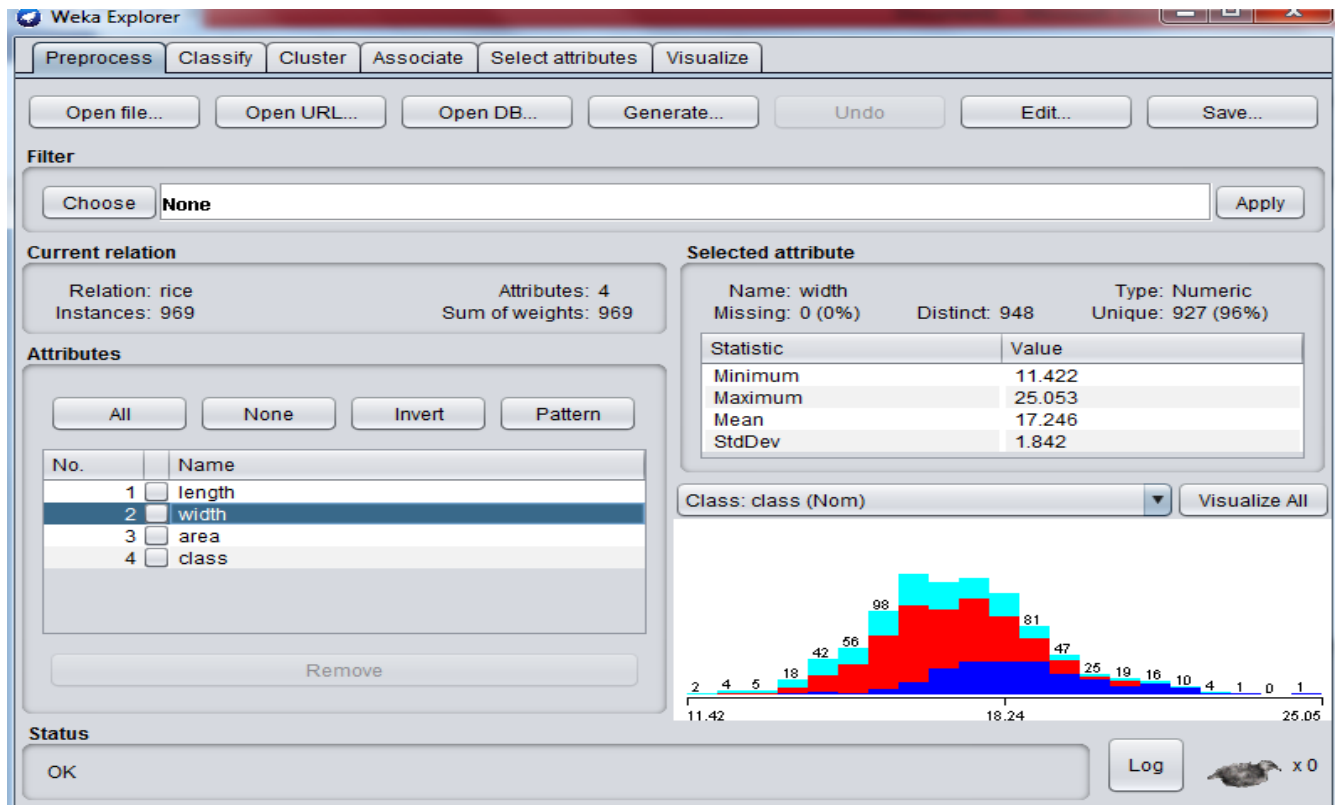




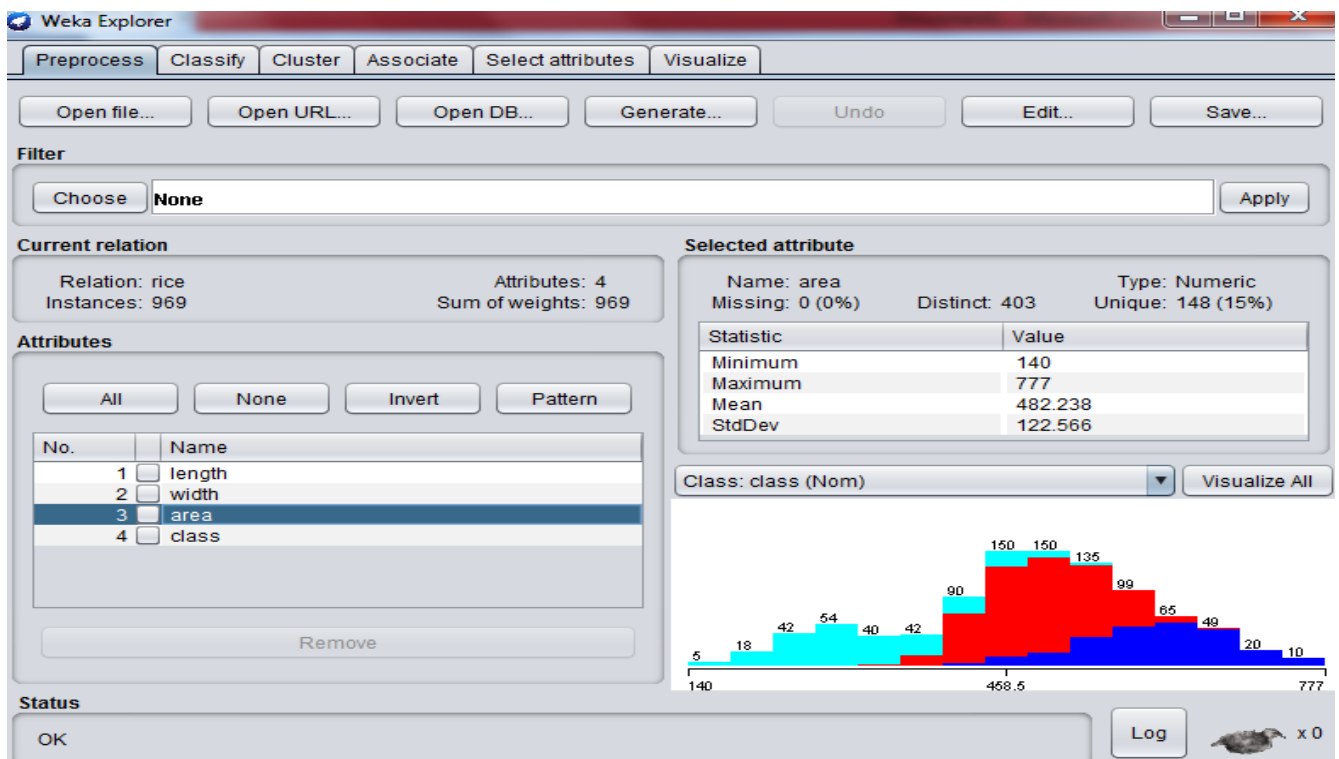
**Step 14:** We are also having the option to visual our dataset attributes in terms of their values. As we had given dataset of three different rice grains tota, basmati and kernel having three attributes that are length, width and area. So in the given screen shot three different colors are present these three different types of rice with their **length values** by clicking upon **Length** option present under the heading of **Attributes**.



**Step 15:** Visual image of width values for three different types of rice grain by click upon **Width** option present under the heading of **Attributes**.



**Step 16:** Visual image of area values for three different types of rice grains by clicking upon the option of **Area** under the heading of **Attributes**.



**Step 17:** Visual the values of all the attributes that are present in class by clicking upon the option of **Class** under the heading of **Attributes**.

Weka Explorer

Preprocess | Classify | Cluster | Associate | Select attributes | Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter

Choose **None** Apply

Current relation

Relation: rice Attributes: 4  
Instances: 969 Sum of weights: 969

Attributes

All None Invert Pattern

No.	Name
1	<input type="checkbox"/> length
2	<input type="checkbox"/> width
3	<input type="checkbox"/> area
4	<input checked="" type="checkbox"/> class

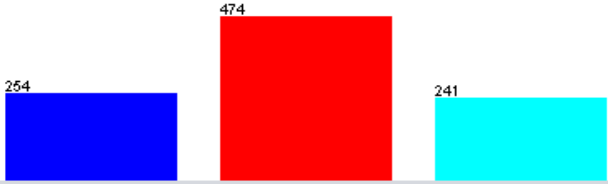
Remove

Selected attribute

Name: class Missing: 0 (0%) Distinct: 3 Type: Nominal Unique: 0 (0%)


No.	Label	Count	Weight
1	Basmati	254	254.0
2	kernel	474	474.0
3	Tota	241	241.0

Class: class (Nom) Visualize All



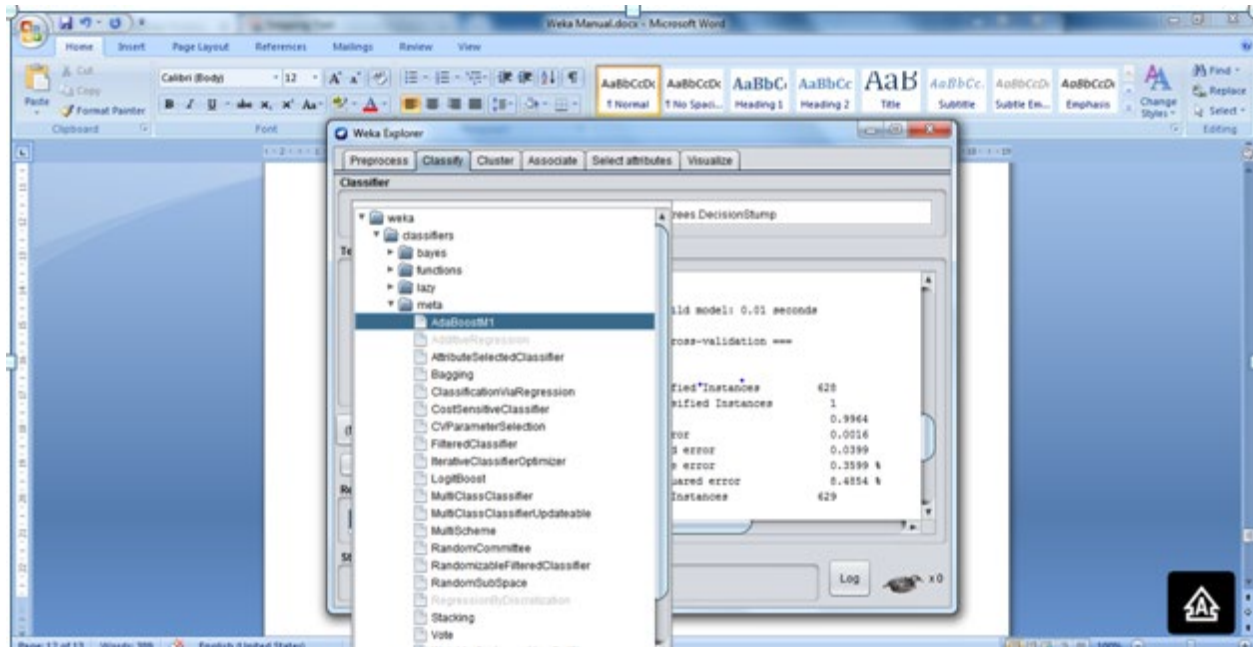
254 474 241

Status

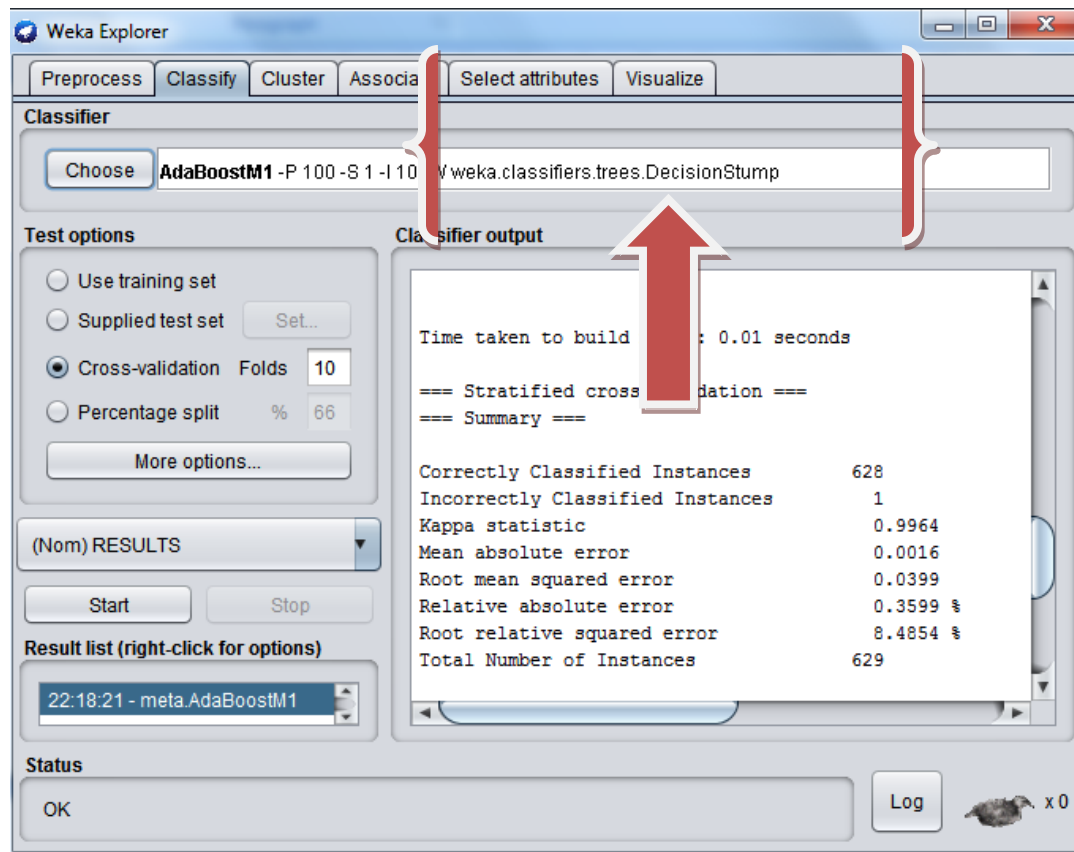
OK Log  x 0

## Boosting Method

**Step 1:** First step is to choose the AdaBoostM1 by click upon the Choose button under the classify tab. It is available under the option meta.



**Step2:** Click on the selected classifier and another window is opened.



**Step 3:** choose the boosting classifier by clicking upon the choose button. After selecting the classifier press ok button and start the boosting process.



