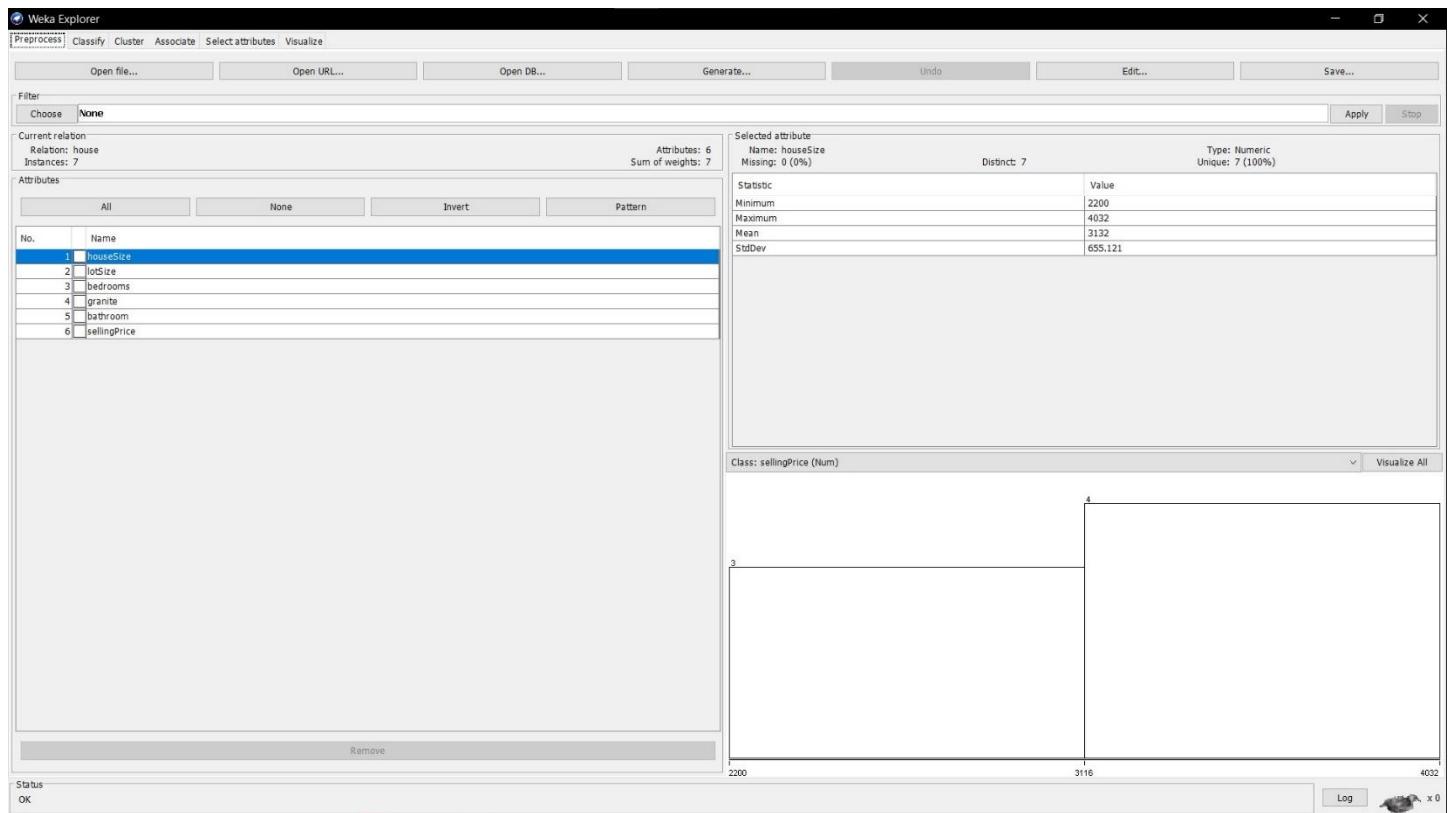
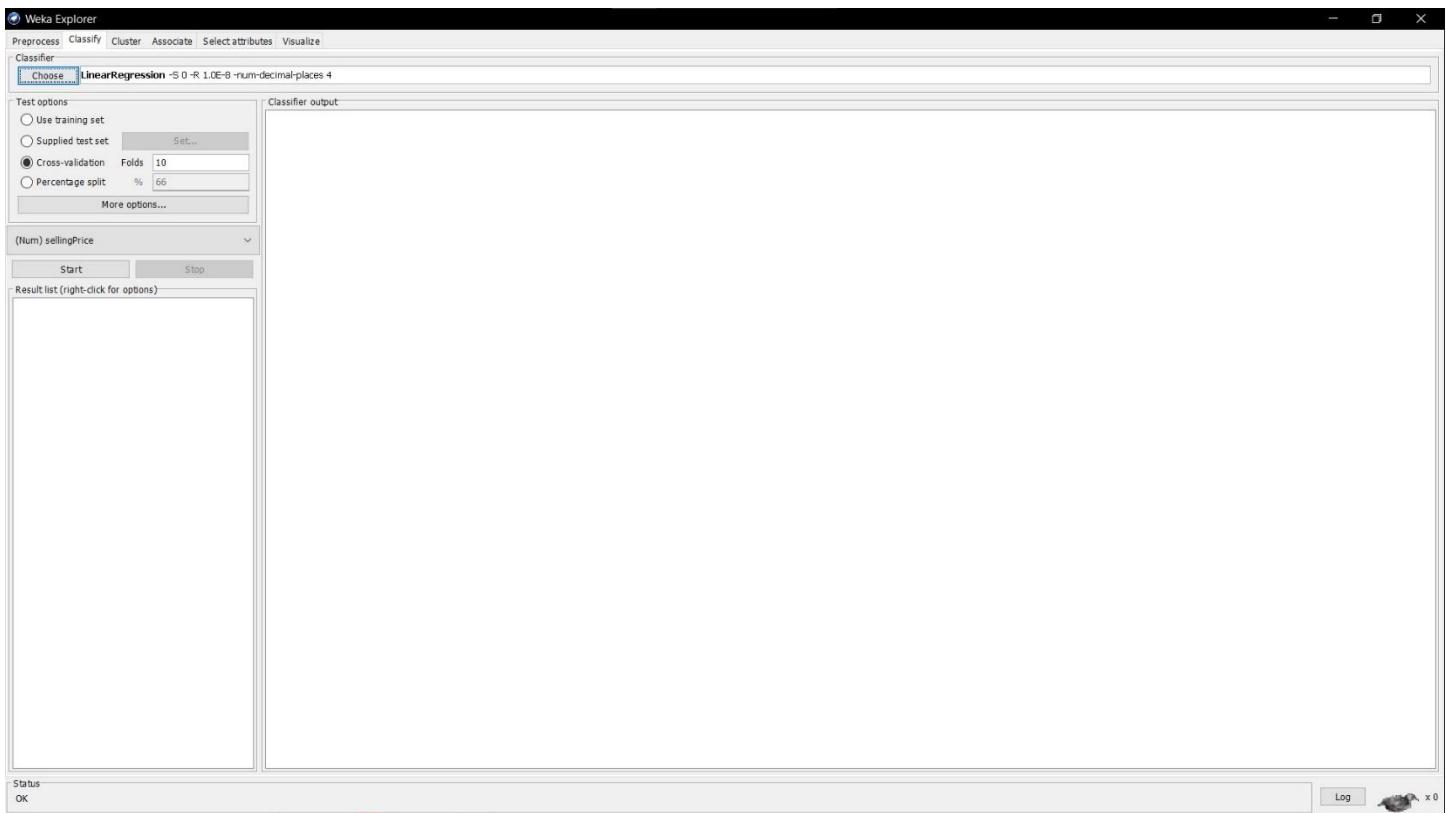


WEKA Lab Exercise

PART 1:



Load Houses



Linear Regression Classifier

The screenshot shows the Weka Explorer interface with the 'Classifier' tab selected. The 'Choose' dropdown menu is open, showing 'LinearRegression -S 0 -R 1.0E-8 -num-decimal-places 4'. The 'Test options' section is identical to the previous screenshot. The 'Classifier output' pane displays the following text:

```
==== Run information ====
Scheme: weka.classifiers.functions.LinearRegression -S 0 -R 1.0E-8 -num-decimal-places 4
Relation: house
Instances: 7
Attributes: 6
houseSize
lotSize
bedrooms
granite
bathroom
sellingPrice
Test mode: 10-fold cross-validation
==== Classifier model (full training set) ====
Linear Regression Model
sellingPrice =
-26.6882 * houseSize +
7.0551 * lotSize +
43166.0767 * bedrooms +
42292.0901 * bathroom +
-21661.1208
Time taken to build model: 0.07 seconds
```

The status bar at the bottom left says 'Status Problem evaluating classifier'.

Selling Price Start Build

Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier

Choose **LinearRegression -S 0 -R 1.0E-8 -num-decimal-places 4**

Test options

Use training set

Supplied test set Set...

Cross-validation Folds 10

Percentage split % 66

More options...

(Num) class

Start Stop

Result list (right-click for options)

19:01:34 - functions.LinearRegression

Classifier output

```
acceleration
model
origin
class
Test mode: 10-fold cross-validation
==== Classifier model (full training set) ====
Linear Regression Model
class =
-2.2744 * cylinders=6,3,5,4 +
-4.4421 * cylinders=3,5,4 +
6.74 * cylinders=5,4 +
0.012 * displacement +
-0.0355 * horsepower +
-0.0056 * weight +
1.6184 * model=75,71,76,74,77,78,79,81,82,80 +
1.8307 * model=77,78,79,81,82,80 +
1.8958 * model=79,81,82,80 +
1.7754 * model=81,82,80 +
1.167 * model=82,80 +
1.2522 * model=80 +
2.1363 * origin=2,3 +
37.9165

Time taken to build model: 0.14 seconds

==== Cross-validation ====
==== Summary ====
Correlation coefficient 0.9245
Mean absolute error 2.252
Root mean squared error 2.9755
Relative absolute error 34.3876 %
Root relative squared error 37.9994 %
Total Number of Instances 398
```

Status OK

Log  x 0

Load AutoMPG and Class Start Build