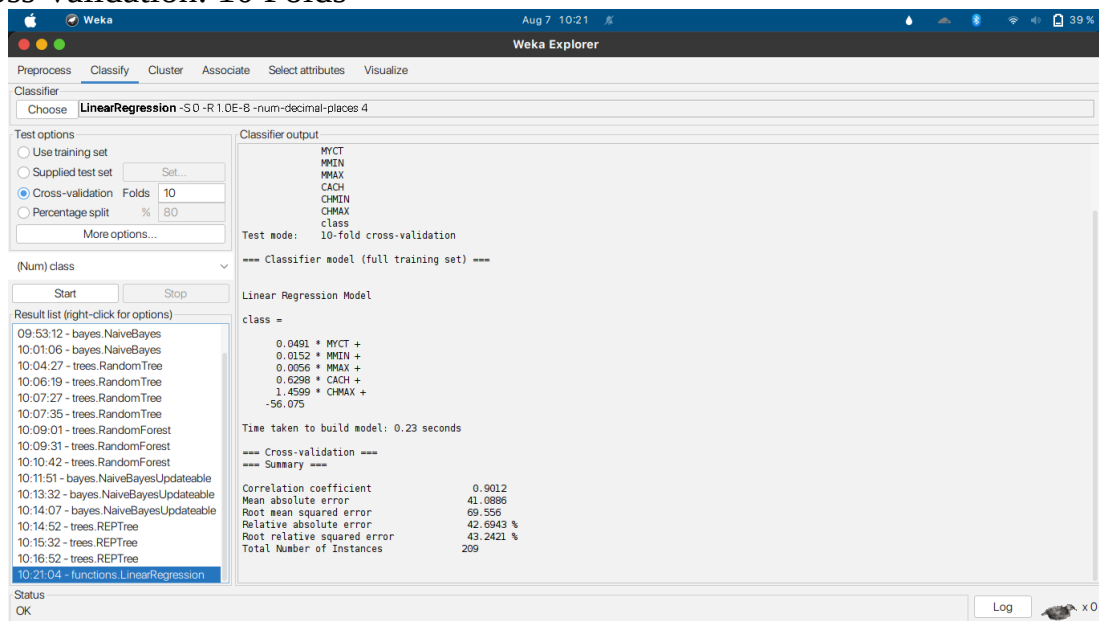# Experiment – I
Exploration of Weka tool for Regression Task
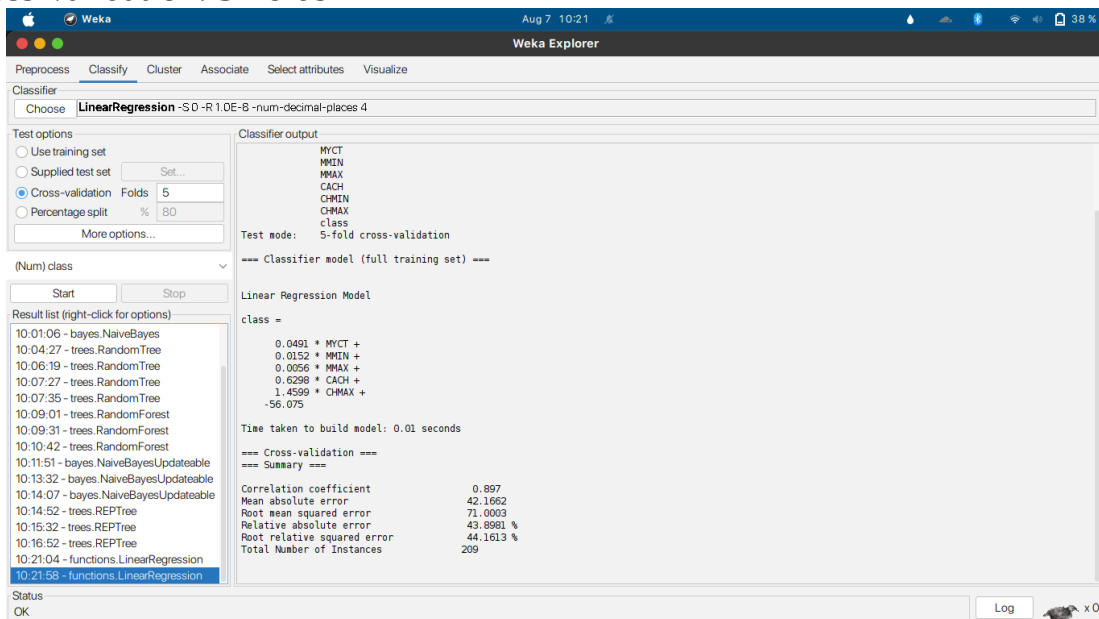
1. Linear Regression:
Cross-validation: 10 Folds

2.

Linear Regression:
Cross-validation: 5 Folds

3.

Linear Regression:
Percentage Split: 80%

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   5
● Percentage split   %   80

More options...

(Num) class

Start   Stop

Result list (right-click for options)

10:04:27 - trees.RandomTree
10:06:19 - trees.RandomTree
10:07:27 - trees.RandomTree
10:07:35 - trees.RandomTree
10:09:01 - trees.RandomForest
10:09:31 - trees.RandomForest
10:10:42 - trees.RandomForest
10:11:51 - bayes.NaiveBayesUpdateable
10:13:32 - bayes.NaiveBayesUpdateable
10:14:07 - bayes.NaiveBayesUpdateable
10:14:52 - trees.REPTree
10:15:32 - trees.REPTree
10:16:52 - trees.REPTree
10:21:04 - functions.LinearRegression
10:21:58 - functions.LinearRegression
10:22:34 - functions.LinearRegression

Classifier output

```
                 CACH
                 CHMIN
                 CHMAX
                 class
Test mode:    split 80.0% train, remainder test

=== Classifier model (full training set) ===

Linear Regression Model

class =

      0.0491 * MYCT +
      0.0152 * MMIN +
      0.0056 * MMAX +
      0.6298 * CACH +
      1.4599 * CHMAX +
    -56.075

Time taken to build model: 0 seconds

=== Evaluation on test split ===

Time taken to test model on test split: 0 seconds

=== Summary ===

Correlation coefficient             0.9186
Mean absolute error                 36.6448
Root mean squared error             48.1821
Relative absolute error             42.9238 %
Root relative squared error         45.2838 %
Total Number of Instances           42
```

Status

OK

Log   x 0