

Name: Bhavesh Kewalramani

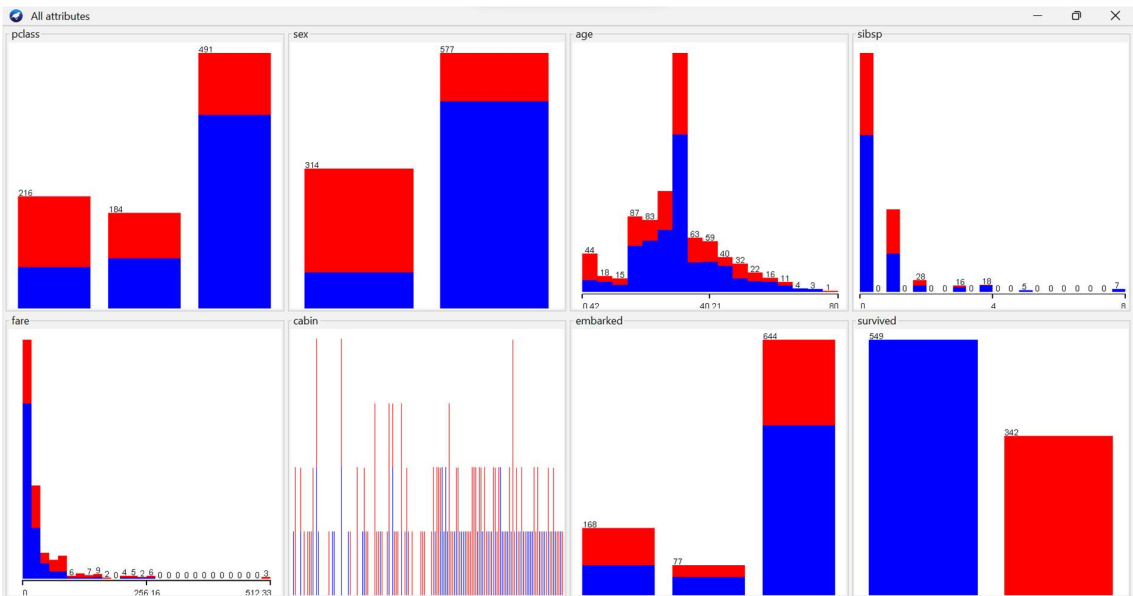
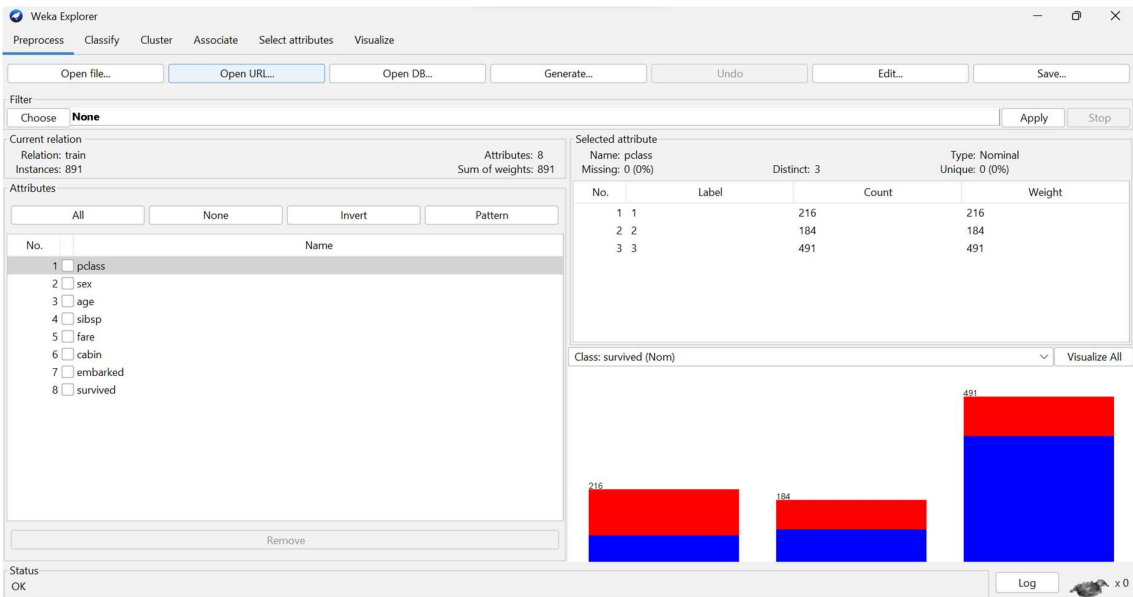
Roll No.: A-25

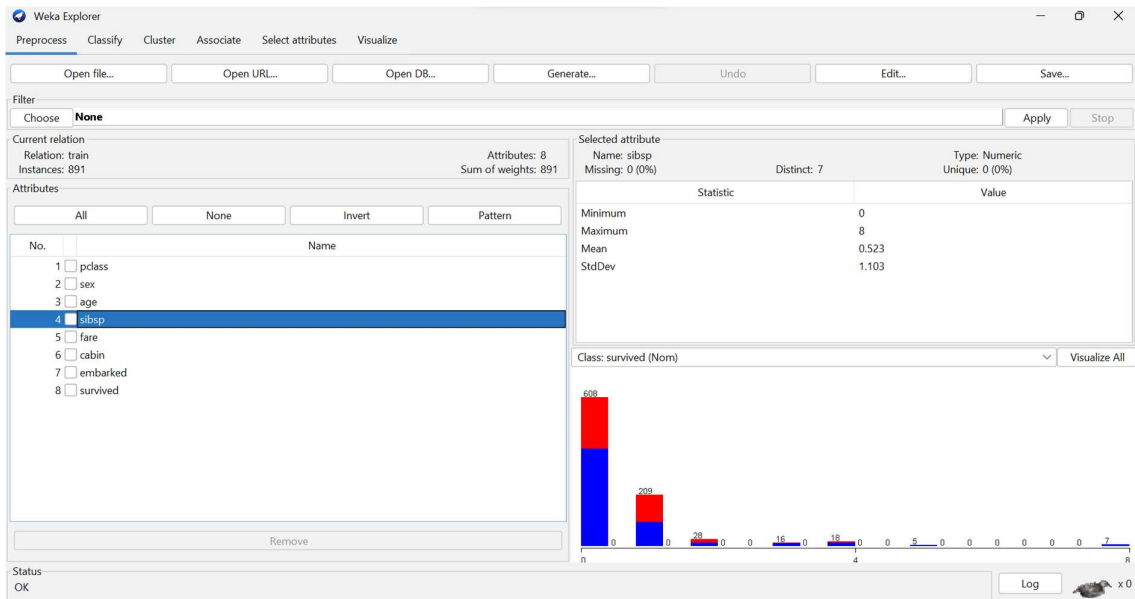
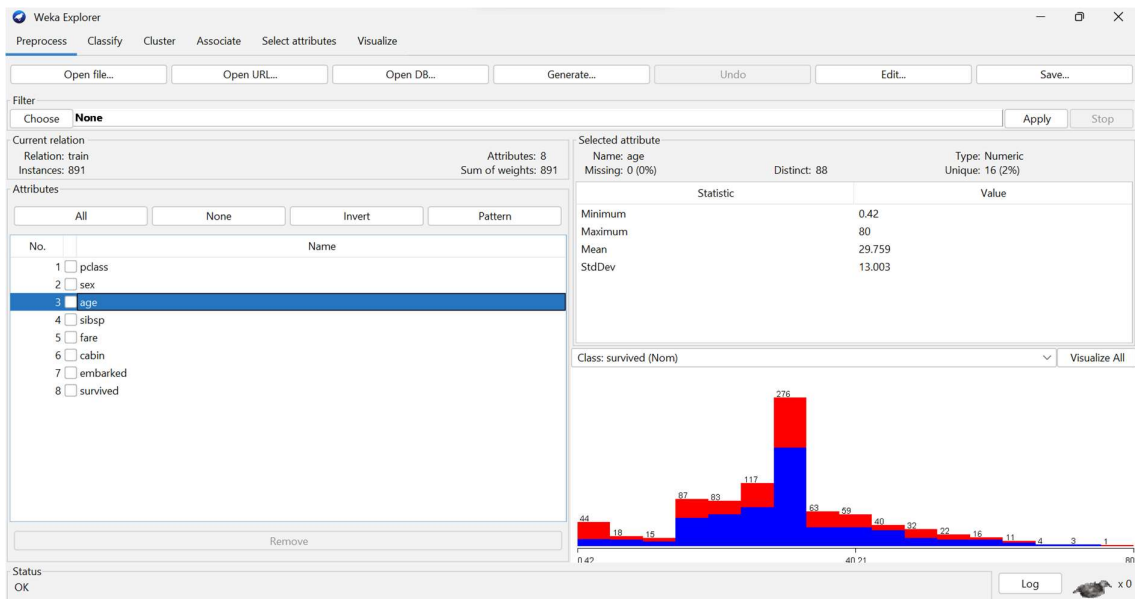
Section: A

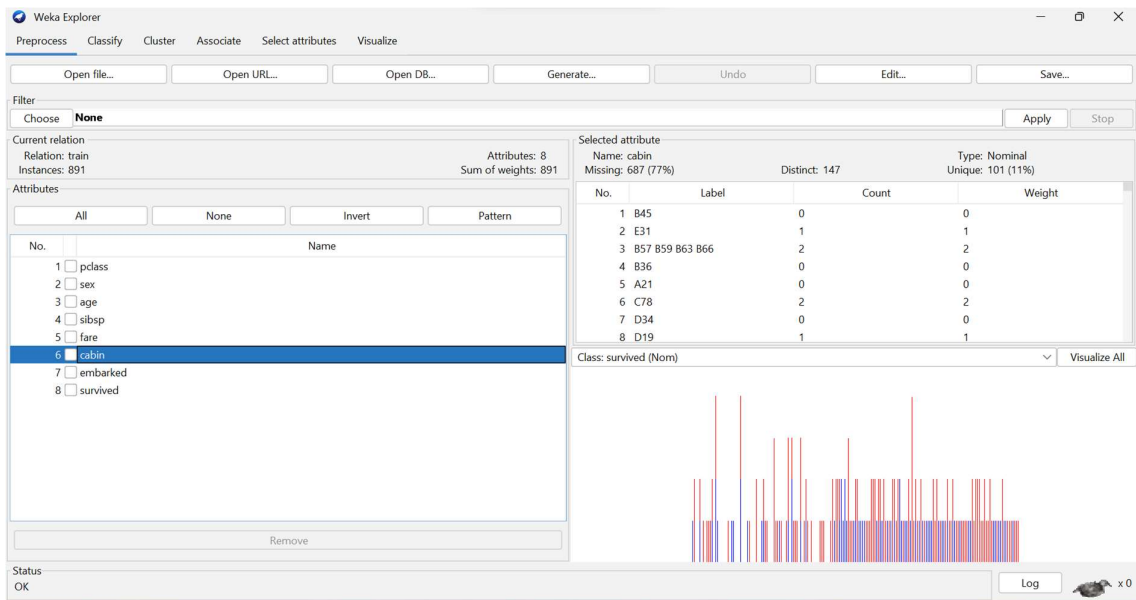
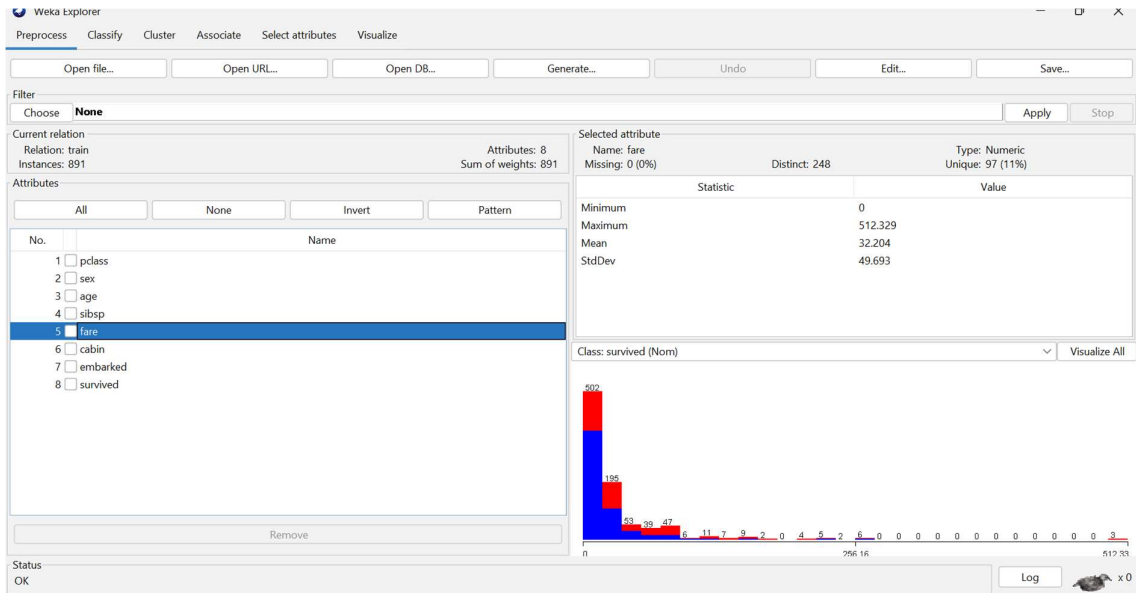
Semester: VII

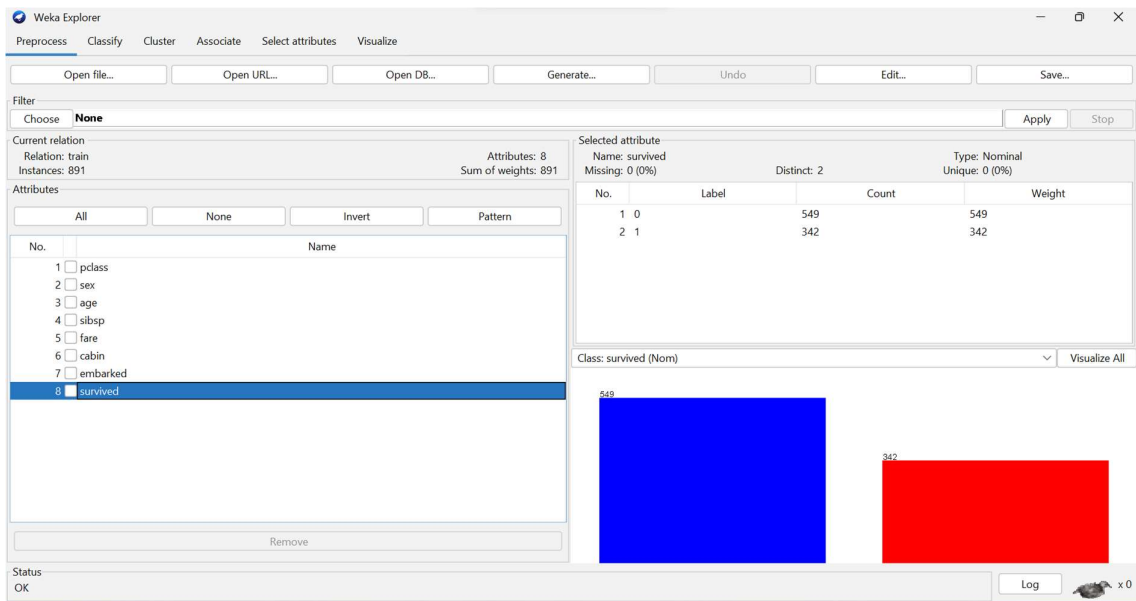
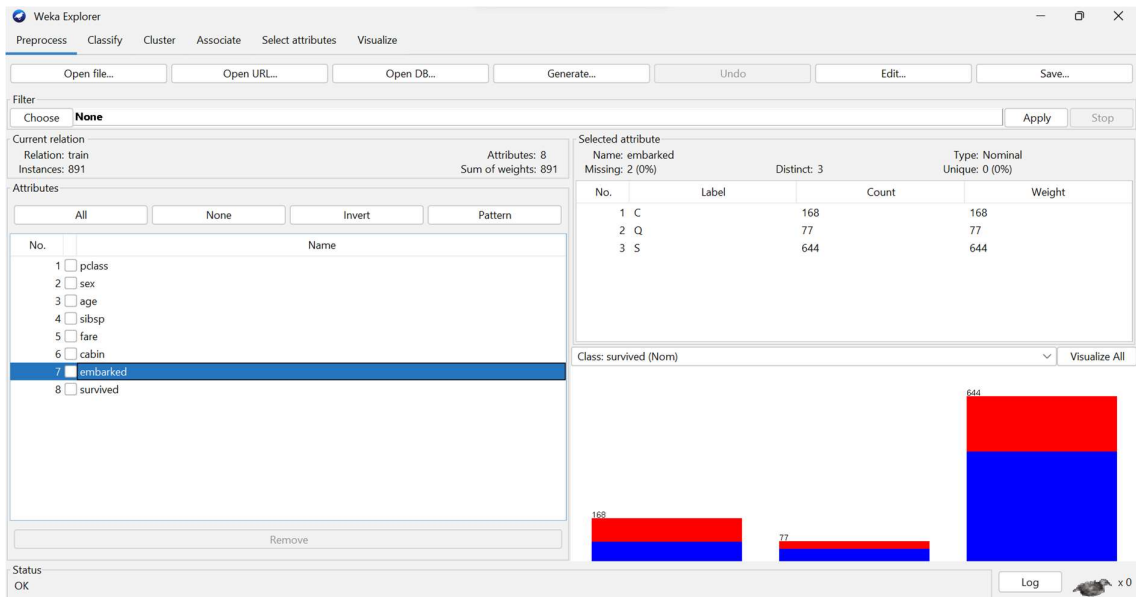
Shift: I

Batch: A1









**Weka Explorer**

Preprocess   **Classify**   Cluster   Associate   Select attributes   Visualize

Classifier: Choose **REPTree -M 2 -V 0.001 -N 3 -S 1 -L -1 -I 0.0**

**Test options**

☐ Use training set

☐ Supplied test set   

☒ Cross-validation   Folds: **10**

☐ Percentage split   %: **80**

(Nom) survived

Result list (right-click for options)

12:04:58 - rules.DecisionTable

12:05:59 - rules.DecisionTable

12:06:09 - rules.DecisionTable

**12:08:19 - trees.REPTree**

**Classifier output**

```

==== Run information ====

Scheme:      weka.classifiers.trees.REPTree -M 2 -V 0.001 -N 3 -S 1 -L -1 -I 0.0
Relation:    train
Instances:   891
Attributes:  8
  pclass
  sex
  age
  sibsp
  fare
  cabin
  embarked
  survived

Test mode:   10-fold cross-validation

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

REPTree
=====

sex = female
|  pclass = 1
|  |  cabin = B45 : 1 (0/0) [0/0]
|  |  cabin = E31 : 1 (0/0) [0/0]
|  |  cabin = B57 B59 B63 B66 : 1 (1.2/0) [1.06/0]
|  |  cabin = B36 : 1 (0/0) [0/0]
|  |  cabin = A21 : 1 (0/0) [0/0]

```

Status: OK      x0

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12:04:58 - rules.DecisionTable

12:05:59 - rules.DecisionTable

12:06:09 - rules.DecisionTable

**12:08:19 - trees.REPTree**

**Classifier output**

```

REPTree
=====

sex = female
|  pclass = 1
|  |  cabin = B45 : 1 (0/0) [0/0]
|  |  cabin = E31 : 1 (0/0) [0/0]
|  |  cabin = B57 B59 B63 B66 : 1 (1.2/0) [1.06/0]
|  |  cabin = B36 : 1 (0/0) [0/0]
|  |  cabin = A21 : 1 (0/0) [0/0]
|  |  cabin = C78 : 1 (1.2/0) [0.06/0]
|  |  cabin = D34 : 1 (0/0) [0/0]
|  |  cabin = D19 : 1 (0/0) [0/0]
|  |  cabin = A9 : 1 (0/0) [0/0]
|  |  cabin = D15 : 1 (0/0) [1/0]
|  |  cabin = D56 : 1 (0/0) [0/0]
|  |  cabin = C103 : 1 (1.2/0) [0.06/0]
|  |  cabin = C123 : 1 (0/0) [1/0]
|  |  cabin = C31 : 1 (0/0) [0/0]
|  |  cabin = C23 C25 C27 : 1 (1.2/0) [1.06/0]
|  |  cabin = F G63 : 1 (0/0) [0/0]
|  |  cabin = B61 : 1 (0/0) [0/0]
|  |  cabin = C53 : 1 (0/0) [0/0]
|  |  cabin = D43 : 1 (0/0) [0/0]
|  |  cabin = C130 : 1 (0/0) [0/0]
|  |  cabin = C132 : 1 (0/0) [0/0]
|  |  cabin = C101 : 1 (1.2/0) [0.06/0]
|  |  cabin = C55 C57 : 1 (0/0) [0/0]
|  |  cabin = B71 : 1 (0/0) [0/0]

```

Status: OK      x0

Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier

Choose REPTree -M 2 -V 0.001 -N 3 -S 1 -L -1 -I 0.0

Test options

☐ Use training set

☐ Supplied test set Set...

☒ Cross-validation Folds 10

☐ Percentage split % 80

More options...

(Nom) survived

Start Stop

Result list (right-click for options)

12:04:58 - rules.DecisionTable

12:05:59 - rules.DecisionTable

12:06:09 - rules.DecisionTable

12:08:19 - trees.REPTree

Classifier output

```
| | cabin = C46 : 1 (0/0) [0/0]
| | cabin = C116 : 1 (0/0) [0/0]
| | cabin = F : 1 (0/0) [0/0]
| | cabin = A29 : 1 (0/0) [0/0]
| | cabin = G6 : 1 (0/0) [0/0]
| | cabin = C6 : 1 (0/0) [0/0]
| | cabin = C28 : 1 (0/0) [0/0]
| | cabin = C51 : 1 (0/0) [0/0]
| | cabin = E46 : 1 (0/0) [0/0]
| | cabin = C54 : 1 (0/0) [1/0]
| | cabin = C97 : 1 (0/0) [0/0]
| | cabin = D22 : 1 (0/0) [0/0]
| | cabin = B10 : 1 (0/0) [0/0]
| | cabin = F4 : 1 (0/0) [0/0]
| | cabin = E45 : 1 (0/0) [0/0]
| | cabin = E52 : 1 (0/0) [0/0]
| | cabin = D30 : 1 (0/0) [0/0]
| | cabin = B58 B60 : 1 (0/0) [1/0]
| | cabin = E34 : 1 (1.2/0) [0.06/0]
| | cabin = C62 C64 : 1 (1.2/0) [0.06/0]
| | cabin = A11 : 1 (0/0) [0/0]
| | cabin = B11 : 1 (0/0) [0/0]
| | cabin = C80 : 1 (0/0) [0/0]
| | cabin = F33 : 1 (0/0) [0/0]
| | cabin = C85 : 1 (0/0) [1/0]
| | cabin = D37 : 1 (1.2/0) [0.06/0]
| | cabin = C86 : 1 (0/0) [0/0]
| | cabin = D21 : 1 (1.2/0) [0.06/0]
| | cabin = C89 : 1 (0/0) [0/0]
```

Status OK Log x0

Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier

Choose REPTree -M 2 -V 0.001 -N 3 -S 1 -L -1 -I 0.0

Test options

☐ Use training set

☐ Supplied test set Set...

☒ Cross-validation Folds 10

☐ Percentage split % 80

More options...

(Nom) survived

Start Stop

Result list (right-click for options)

12:04:58 - rules.DecisionTable

12:05:59 - rules.DecisionTable

12:06:09 - rules.DecisionTable

12:08:19 - trees.REPTree

Classifier output

```
| | cabin = B26 : 1 (0/0) [0/0]
| | cabin = C22 C26 : 0 (1.2/0.2) [1.06/0.06]
| | cabin = B69 : 1 (0/0) [1/0]
| | cabin = C32 : 1 (1.2/0) [0.06/0]
| | cabin = B78 : 1 (1.2/0) [0.06/0]
| | cabin = F E57 : 1 (0/0) [0/0]
| | cabin = F2 : 1 (0/0) [0/0]
| | cabin = A18 : 1 (0/0) [0/0]
| | cabin = C106 : 1 (0/0) [0/0]
| | cabin = B51 B53 B55 : 1 (0/0) [0/0]
| | cabin = D10 D12 : 1 (0/0) [0/0]
| | cabin = E60 : 1 (0/0) [0/0]
| | cabin = E50 : 1 (0/0) [0/0]
| | cabin = E39 E41 : 1 (0/0) [0/0]
| | cabin = B52 B54 B56 : 1 (0/0) [0/0]
| | cabin = C39 : 1 (0/0) [0/0]
| | cabin = B24 : 1 (0/0) [0/0]
| | cabin = D28 : 1 (1.2/0) [0.06/0]
| | cabin = B41 : 1 (0/0) [0/0]
| | cabin = C7 : 1 (1.2/0) [0.06/0]
| | cabin = D40 : 1 (0/0) [0/0]
| | cabin = D38 : 1 (0/0) [0/0]
| | cabin = C105 : 1 (0/0) [0/0]
| | cabin = A6 : 1 (0/0) [0/0]
| | cabin = D33 : 1 (1.2/0) [0.06/0]
| | cabin = B30 : 1 (0/0) [0/0]
| | cabin = C52 : 1 (0/0) [0/0]
| | cabin = B28 : 1 (1.2/0) [1.06/0]
| | cabin = C83 : 1 (1.2/0) [0.06/0]
| | cabin = F C72 : 1 (0/0) [0/0]
```

Status OK Log x0

**Weka Explorer**

Preprocess   **Classify**   Cluster   Associate   Select attributes   Visualize

Classifier: Choose **REPTree-M 2 -V 0.001 -N 3 -S 1 -L -I -I 0.0**

Test options:  
☐ Use training set  
☐ Supplied test set   Set...  
☒ Cross-validation   Folds: **10**  
☐ Percentage split   %: **80**  
 More options...

(Nom) survived

Start   Stop

Result list (right-click for options):  
 12:04:58 - rules.DecisionTable  
 12:05:59 - rules.DecisionTable  
 12:06:09 - rules.DecisionTable  
**12:08:19 - trees.REPTree**

Classifier output:

```

| | cabin = C148 : 1 (0/0) [0/0]
| | pclass = 2 : 1 (53/6) [23/0]
| | pclass = 3
| | fare < 23.91
| | | embarked = C : 1 (18/7) [5/1]
| | | embarked = Q : 1 (23/7) [8/1]
| | | embarked = S
| | | fare < 20.66
| | | | age < 36
| | | | | fare < 10.82 : 0 (20/8) [13/6]
| | | | | fare >= 10.82 : 1 (11/3) [8/2]
| | | | | age >= 36 : 0 (6/1) [1/1]
| | | | | fare >= 20.66 : 0 (2/0) [3/1]
| | | | | fare >= 23.91 : 0 (15/1) [11/2]
sex = male
| | pclass = 1 : 0 (88/34) [34/11]
| | pclass = 2
| | | age < 9 : 1 (2/0) [7/0]
| | | age >= 9 : 0 (64/4) [35/4]
| | pclass = 3
| | | age < 9.5
| | | | sibsp < 2 : 1 (6/0) [1/0]
| | | | sibsp >= 2 : 0 (5/0) [9/1]
| | | | age >= 9.5 : 0 (221/32) [105/7]

Size of the tree : 212
Time taken to build model: 0.06 seconds

```

Status: OK   Log   x0

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Classifier: Choose **REPTree-M 2 -V 0.001 -N 3 -S 1 -L -I -I 0.0**

Test options:  
☐ Use training set  
☐ Supplied test set   Set...  
☒ Cross-validation   Folds: **10**  
☐ Percentage split   %: **80**  
 More options...

(Nom) survived

Start   Stop

Result list (right-click for options):  
 12:04:58 - rules.DecisionTable  
 12:05:59 - rules.DecisionTable  
 12:06:09 - rules.DecisionTable  
**12:08:19 - trees.REPTree**

Classifier output:

```

Time taken to build model: 0.06 seconds

=== Stratified cross-validation ===
=== Summary ===
Correctly Classified Instances      723      81.1448 %
Incorrectly Classified Instances    168      18.8552 %
Kappa statistic                    0.594
Mean absolute error                 0.2681
Root mean squared error             0.3761
Relative absolute error             56.6742 %
Root relative squared error         77.3409 %
Total Number of Instances          891

=== Detailed Accuracy By Class ===
               TP Rate  FP Rate  Precision  Recall  F-Measure  MCC   ROC Area  PRC Area  Class
               0.916   0.357   0.805     0.916   0.857     0.595  0.834    0.832     0
               0.643   0.084   0.827     0.643   0.724     0.595  0.834    0.815     1
Weighted Avg.   0.811   0.252   0.813     0.811   0.806     0.595  0.834    0.825

=== Confusion Matrix ===
  a  b  <-- classified as
503 46 | a = 0
122 220 | b = 1

```

Status: OK   Log   x0

