

Create art file for diabetes database

Preprocess Classify Cluster Associate Select attributes Visualize

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

filter: Choose **None** Apply Stop

Current relation: Relation: breast-cancer Instances: 286 Attributes: 10 Sum of weights: 286

Attributes: All None Invert Pattern

No. Name

1 age
2 menopause
3 tumor-size
4 inv-nodes
5 node-caps
6 deg-malign
7 breast
8 breast-quad
9 irradiat
10 Class

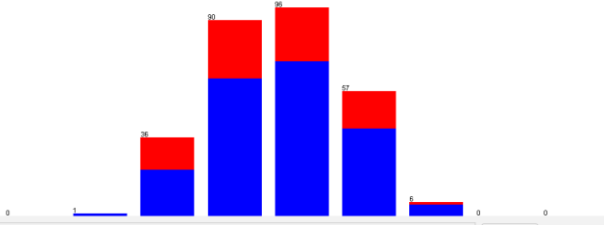
Remove

Status OK

Selected attribute: Name: age Missing: 0 (0%) Distinct: 6 Type: Nominal Unique: 1 (0%)

| No. | Label | Count | Weight |
|-----|-------|-------|--------|
| 1 | 10-19 | 0 | 0 |
| 2 | 20-29 | 1 | 1 |
| 3 | 30-39 | 36 | 36 |
| 4 | 40-49 | 90 | 90 |
| 5 | 50-59 | 96 | 96 |
| 6 | 60-69 | 57 | 57 |
| 7 | 70-79 | 6 | 6 |
| 8 | 80-89 | 0 | 0 |
| 9 | 90-99 | 0 | 0 |

Class: Class (Nom) Visualize All



Preprocess Classify Cluster Associate Select attributes Visualize

Classifier: Choose **NaiveBayes**

Test options:
☐ Use training set
☐ Supplied test set
☒ Cross-validation Folds: 10
☐ Percentage split %: 66
More options...

Nom) Class
Start Stop

Result list (right-click for options):
110040 - rules.DecisionTable
110631 - functions.SMO
113316 - bayes.NaiveBayes

Classifier output

=== Run information ===

Schema: weka.classifiers.bayes.NaiveBayes
Relation: breast-cancer
Instances: 286
Attributes: 10
age
menopause
tumor-size
inv-nodes
node-caps
deg-malign
breast
breast-quad
irradiat
Class

Test mode: 10-fold cross-validation

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

Naive Bayes Classifier

| Attribute | no-recurrence-events (0.7) | recurrence-events (0.3) |
|-----------|-------------------------------|----------------------------|
| age | | |
| 10-19 | 1.0 | 1.0 |
| 20-29 | 2.0 | 1.0 |
| 30-39 | 22.0 | 16.0 |
| 40-49 | 64.0 | 28.0 |
| 50-59 | 72.0 | 26.0 |
| 60-69 | 41.0 | 18.0 |
| 70-79 | 6.0 | 2.0 |
| 80-89 | 1.0 | 1.0 |
| 90-99 | 1.0 | 1.0 |
| [total] | 210.0 | 94.0 |

Status OK

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier

Choose **NaiveBayes**

Test options

☐ Use training set

☐ Supplied test set

☒ Cross-validation Folds

☐ Percentage split %

(Nom) Class

Result list (right-click for options)

11:00:40 - rules.DecisionTable

11:06:31 - functions.SMO

11:33:16 - bayes.NaiveBayes

Classifier output

| | | |
|---------|-------|------|
| 5-9 | 5.0 | 1.0 |
| 10-14 | 20.0 | 2.0 |
| 15-19 | 24.0 | 8.0 |
| 20-24 | 35.0 | 17.0 |
| 25-29 | 37.0 | 19.0 |
| 30-34 | 36.0 | 26.0 |
| 35-39 | 13.0 | 8.0 |
| 40-44 | 17.0 | 7.0 |
| 45-49 | 3.0 | 2.0 |
| 50-54 | 6.0 | 4.0 |
| 55-59 | 1.0 | 1.0 |
| [total] | 213.0 | 97.0 |

inv-nodes

| | | |
|---------|-------|------|
| 0-2 | 168.0 | 47.0 |
| 3-5 | 20.0 | 18.0 |
| 6-8 | 8.0 | 11.0 |
| 9-11 | 5.0 | 7.0 |
| 12-14 | 2.0 | 3.0 |
| 15-17 | 4.0 | 4.0 |
| 18-20 | 1.0 | 1.0 |
| 21-23 | 1.0 | 1.0 |
| 24-26 | 1.0 | 2.0 |
| 27-29 | 1.0 | 1.0 |
| 30-32 | 1.0 | 1.0 |
| 33-35 | 1.0 | 1.0 |
| 36-39 | 1.0 | 1.0 |
| [total] | 214.0 | 98.0 |

node-caps

| | | |
|---------|-------|------|
| yes | 26.0 | 32.0 |
| no | 172.0 | 52.0 |
| [total] | 198.0 | 84.0 |

deg-malig

| | | |
|---|-------|------|
| 1 | 60.0 | 13.0 |
| 2 | 103.0 | 29.0 |
| 3 | 41.0 | 46.0 |

Status

OK

Log

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier

Choose **NaiveBayes**

Test options

☐ Use training set

☐ Supplied test set

☒ Cross-validation Folds

☐ Percentage split %

(Nom) Class

Result list (right-click for options)

11:00:40 - rules.DecisionTable

11:06:31 - functions.SMO

11:33:16 - bayes.NaiveBayes

Classifier output

| | | |
|---------|-------|------|
| [total] | 203.0 | 87.0 |
|---------|-------|------|

breast-quad

| | | |
|-----------|-------|------|
| left_up | 72.0 | 27.0 |
| left_low | 76.0 | 36.0 |
| right_up | 21.0 | 14.0 |
| right_low | 19.0 | 7.0 |
| central | 18.0 | 5.0 |
| [total] | 206.0 | 89.0 |

irradiat

| | | |
|---------|-------|------|
| yes | 38.0 | 32.0 |
| no | 165.0 | 55.0 |
| [total] | 203.0 | 87.0 |

Time taken to build model: 0 seconds

=== Stratified cross-validation ===

=== Summary ===

| | | |
|----------------------------------|-----------|-----------|
| Correctly Classified Instances | 205 | 71.6783 % |
| Incorrectly Classified Instances | 81 | 28.3217 % |
| Kappa statistic | 0.2857 | |
| Mean absolute error | 0.3272 | |
| Root mean squared error | 0.4534 | |
| Relative absolute error | 78.2006 % | |
| Root relative squared error | 99.1872 % | |
| Total Number of Instances | 286 | |

=== Detailed Accuracy By Class ===

| | TP Rate | FP Rate | Precision | Recall | F-Measure | MCC | ROC Area | PRC Area | Class |
|---------------|---------|---------|-----------|--------|-----------|-------|----------|----------|----------------------|
| | 0.836 | 0.565 | 0.778 | 0.836 | 0.806 | 0.288 | 0.701 | 0.837 | no-recurrence-events |
| | 0.435 | 0.164 | 0.529 | 0.435 | 0.477 | 0.288 | 0.701 | 0.514 | recurrence-events |
| Weighted Avg. | 0.717 | 0.446 | 0.704 | 0.717 | 0.708 | 0.288 | 0.701 | 0.741 | |

Status

OK

Log