**Hasil pengujian**

1. **Classifier menggunakan weka**
2. use training set

=== Run information ===

Scheme:weka.classifiers.bayes.NaiveBayes

Relation: car

Instances: 1707

Attributes: 7

buying

maint

doors

persons

lug\_boot

safety

class

Test mode:evaluate on training data

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

Naive Bayes Classifier

Class

Attribute unacc acc good vgood

(0.7) (0.23) (0.04) (0.04)

===========================================

buying

vhigh 340.0 73.0 1.0 1.0

high 325.0 109.0 1.0 1.0

med 269.0 116.0 24.0 27.0

low 259.0 90.0 47.0 40.0

[total] 1193.0 388.0 73.0 69.0

maint

vhigh 340.0 73.0 1.0 1.0

high 315.0 106.0 1.0 14.0

med 269.0 116.0 24.0 27.0

low 269.0 93.0 47.0 27.0

[total] 1193.0 388.0 73.0 69.0

doors

2 306.0 82.0 16.0 11.0

3 301.0 100.0 19.0 16.0

4 293.0 103.0 19.0 21.0

5more 293.0 103.0 19.0 21.0

[total] 1193.0 388.0 73.0 69.0

persons

2 572.0 1.0 1.0 1.0

4 304.0 199.0 37.0 31.0

more 316.0 187.0 34.0 36.0

[total] 1192.0 387.0 72.0 68.0

lug\_boot

small 445.0 106.0 22.0 1.0

med 385.0 136.0 25.0 26.0

big 362.0 145.0 25.0 41.0

[total] 1192.0 387.0 72.0 68.0

safety

low 570.0 1.0 1.0 1.0

med 351.0 181.0 40.0 1.0

high 271.0 205.0 31.0 66.0

[total] 1192.0 387.0 72.0 68.0

Time taken to build model: 0 seconds

=== Evaluation on training set ===

=== Summary ===

Correctly Classified Instances 1486 87.0533 %

Incorrectly Classified Instances 221 12.9467 %

Kappa statistic 0.7105

Mean absolute error 0.1122

Root mean squared error 0.2231

Relative absolute error 48.6119 %

Root relative squared error 65.721 %

Total Number of Instances 1707

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure ROC Area Class

0.955 0.153 0.935 0.955 0.945 0.984 unacc

0.768 0.097 0.697 0.768 0.731 0.959 acc

0.304 0.007 0.636 0.304 0.412 0.986 good

0.538 0.001 0.946 0.538 0.686 0.999 vgood

Weighted Avg. 0.871 0.128 0.87 0.871 0.865 0.979

=== Confusion Matrix ===

a b c d <-- classified as

1135 52 2 0 | a = unacc

79 295 10 0 | b = acc

0 46 21 2 | c = good

0 30 0 35 | d = vgood

1. cross validation folds

=== Run information ===

Scheme:weka.classifiers.bayes.NaiveBayes

Relation: car

Instances: 1707

Attributes: 7

buying

maint

doors

persons

lug\_boot

safety

class

Test mode:10-fold cross-validation

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

Naive Bayes Classifier

Class

Attribute unacc acc good vgood

(0.7) (0.23) (0.04) (0.04)

===========================================

buying

vhigh 340.0 73.0 1.0 1.0

high 325.0 109.0 1.0 1.0

med 269.0 116.0 24.0 27.0

low 259.0 90.0 47.0 40.0

[total] 1193.0 388.0 73.0 69.0

maint

vhigh 340.0 73.0 1.0 1.0

high 315.0 106.0 1.0 14.0

med 269.0 116.0 24.0 27.0

low 269.0 93.0 47.0 27.0

[total] 1193.0 388.0 73.0 69.0

doors

2 306.0 82.0 16.0 11.0

3 301.0 100.0 19.0 16.0

4 293.0 103.0 19.0 21.0

5more 293.0 103.0 19.0 21.0

[total] 1193.0 388.0 73.0 69.0

persons

2 572.0 1.0 1.0 1.0

4 304.0 199.0 37.0 31.0

more 316.0 187.0 34.0 36.0

[total] 1192.0 387.0 72.0 68.0

lug\_boot

small 445.0 106.0 22.0 1.0

med 385.0 136.0 25.0 26.0

big 362.0 145.0 25.0 41.0

[total] 1192.0 387.0 72.0 68.0

safety

low 570.0 1.0 1.0 1.0

med 351.0 181.0 40.0 1.0

high 271.0 205.0 31.0 66.0

[total] 1192.0 387.0 72.0 68.0

Time taken to build model: 0 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 1456 85.2958 %

Incorrectly Classified Instances 251 14.7042 %

Kappa statistic 0.6681

Mean absolute error 0.1152

Root mean squared error 0.2285

Relative absolute error 49.8795 %

Root relative squared error 67.3109 %

Total Number of Instances 1707

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure ROC Area Class

0.952 0.178 0.925 0.952 0.938 0.981 unacc

0.734 0.11 0.66 0.734 0.695 0.946 acc

0.203 0.007 0.538 0.203 0.295 0.979 good

0.431 0.001 0.933 0.431 0.589 0.998 vgood

Weighted Avg. 0.853 0.149 0.85 0.853 0.844 0.974

=== Confusion Matrix ===

a b c d <-- classified as

1132 55 2 0 | a = unacc

92 282 10 0 | b = acc

0 53 14 2 | c = good

0 37 0 28 | d = vgood

1. **Classifier menggunakan Program**