=== Run information ===

Scheme: weka.classifiers.trees.J48 -C 0.25 -M 2

Relation: CleanedData-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.RemovePercentage-P80.0-V

Instances: 316

Attributes: 25

sex

age

address

famsize

Pstatus

Medu

Fedu

traveltime

studytime

failures

schoolsup

famsup

paid

activities

higher

internet

romantic

famrel

freetime

goout

Dalc

Walc

health

absences

G

Test mode: 10-fold cross-validation

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

J48 pruned tree

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failures <= 0

| Dalc = very low

| | internet = no

| | | absences <= 1

| | | | Medu = college: C (1.0)

| | | | Medu = elementary: C (2.0)

| | | | Medu = high school: F (3.0/2.0)

| | | | Medu = junior high: F (3.0)

| | | | Medu = none: F (0.0)

| | | absences > 1

| | | | sex = F

| | | | | studytime = 2 to 5 hours

| | | | | | goout = high: F (3.0)

| | | | | | goout = average: D (3.0)

| | | | | | goout = low: D (2.0)

| | | | | | goout = very low: D (1.0)

| | | | | | goout = very high: F (1.0)

| | | | | studytime = 5 to 10 hours: F (2.0)

| | | | | studytime = <2 hours: F (3.0/1.0)

| | | | | studytime = 10 hours: D (2.0/1.0)

| | | | sex = M: B (2.0)

| | internet = yes

| | | absences <= 17

| | | | address = U

| | | | | Walc = very low

| | | | | | absences <= 1

| | | | | | | health = average

| | | | | | | | romantic = no

| | | | | | | | | famrel = good: B (2.0)

| | | | | | | | | famrel = excellent: F (4.0/1.0)

| | | | | | | | | famrel = average: D (1.0)

| | | | | | | | | famrel = very bad: F (0.0)

| | | | | | | | | famrel = bad: F (1.0)

| | | | | | | | romantic = yes: A (4.0/1.0)

| | | | | | | health = very good: B (9.0/2.0)

| | | | | | | health = very bad

| | | | | | | | Medu = college: B (3.0/1.0)

| | | | | | | | Medu = elementary: F (0.0)

| | | | | | | | Medu = high school

| | | | | | | | | sex = F: F (2.0/1.0)

| | | | | | | | | sex = M: A (2.0)

| | | | | | | | Medu = junior high: F (1.0)

| | | | | | | | Medu = none: F (0.0)

| | | | | | | health = bad: F (3.0/1.0)

| | | | | | | health = good

| | | | | | | | studytime = 2 to 5 hours: F (3.0/1.0)

| | | | | | | | studytime = 5 to 10 hours: A (2.0)

| | | | | | | | studytime = <2 hours: F (0.0)

| | | | | | | | studytime = 10 hours: F (0.0)

| | | | | | absences > 1

| | | | | | | Fedu = college: D (7.0/3.0)

| | | | | | | Fedu = elementary: C (4.0/2.0)

| | | | | | | Fedu = junior high

| | | | | | | | paid = no: A (5.0/1.0)

| | | | | | | | paid = yes

| | | | | | | | | famsize = GT3: B (2.0/1.0)

| | | | | | | | | famsize = LE3: C (3.0/1.0)

| | | | | | | Fedu = high school

| | | | | | | | studytime = 2 to 5 hours

| | | | | | | | | paid = no: D (4.0/1.0)

| | | | | | | | | paid = yes: F (3.0/1.0)

| | | | | | | | studytime = 5 to 10 hours: A (3.0)

| | | | | | | | studytime = <2 hours: C (1.0)

| | | | | | | | studytime = 10 hours: A (2.0)

| | | | | | | Fedu = none: D (2.0/1.0)

| | | | | Walc = average

| | | | | | famsup = no: B (9.0/3.0)

| | | | | | famsup = yes

| | | | | | | absences <= 5

| | | | | | | | Medu = college: B (3.0/1.0)

| | | | | | | | Medu = elementary: B (0.0)

| | | | | | | | Medu = high school: D (3.0/1.0)

| | | | | | | | Medu = junior high: C (3.0/1.0)

| | | | | | | | Medu = none: B (0.0)

| | | | | | | absences > 5: F (4.0)

| | | | | Walc = low

| | | | | | Medu = college

| | | | | | | absences <= 1: F (4.0/2.0)

| | | | | | | absences > 1: B (7.0/1.0)

| | | | | | Medu = elementary: D (4.0)

| | | | | | Medu = high school: F (6.0/4.0)

| | | | | | Medu = junior high

| | | | | | | activities = no: D (3.0/1.0)

| | | | | | | activities = yes: B (4.0/1.0)

| | | | | | Medu = none: B (0.0)

| | | | | Walc = high: D (7.0/3.0)

| | | | | Walc = very high: B (0.0)

| | | | address = R

| | | | | Medu = college

| | | | | | goout = high: A (1.0)

| | | | | | goout = average: B (2.0)

| | | | | | goout = low: A (2.0)

| | | | | | goout = very low: A (0.0)

| | | | | | goout = very high: A (0.0)

| | | | | Medu = elementary: F (2.0)

| | | | | Medu = high school: D (1.0)

| | | | | Medu = junior high: F (7.0/1.0)

| | | | | Medu = none: F (0.0)

| | | absences > 17

| | | | traveltime = 15 to 30 min: F (4.0)

| | | | traveltime = <15 min: C (5.0/2.0)

| | | | traveltime = 30 min to 1 hr: C (1.0)

| | | | traveltime = >1 hour: F (0.0)

| Dalc = low

| | Fedu = college

| | | goout = high: D (3.0/1.0)

| | | goout = average: C (3.0/1.0)

| | | goout = low: A (4.0/2.0)

| | | goout = very low: D (1.0)

| | | goout = very high: F (2.0/1.0)

| | Fedu = elementary

| | | famsize = GT3: B (4.0/2.0)

| | | famsize = LE3: F (2.0/1.0)

| | Fedu = junior high

| | | traveltime = 15 to 30 min: C (3.0/1.0)

| | | traveltime = <15 min: B (10.0/5.0)

| | | traveltime = 30 min to 1 hr: C (2.0)

| | | traveltime = >1 hour: B (0.0)

| | Fedu = high school

| | | Walc = very low: F (0.0)

| | | Walc = average: F (4.0/1.0)

| | | Walc = low: F (0.0)

| | | Walc = high: D (4.0/1.0)

| | | Walc = very high: F (0.0)

| | Fedu = none: D (0.0)

| Dalc = very high

| | absences <= 5: C (3.0)

| | absences > 5: F (2.0/1.0)

| Dalc = average

| | goout = high

| | | sex = F: D (2.0/1.0)

| | | sex = M: F (2.0)

| | goout = average: F (4.0)

| | goout = low: C (3.0/1.0)

| | goout = very low: F (0.0)

| | goout = very high

| | | age <= 16: C (2.0)

| | | age > 16: A (3.0)

| Dalc = high: F (3.0/2.0)

failures > 0

| failures <= 1

| | goout = high: F (14.0/3.0)

| | goout = average

| | | age <= 16: D (2.0/1.0)

| | | age > 16

| | | | absences <= 13: C (6.0/1.0)

| | | | absences > 13: F (3.0)

| | goout = low

| | | internet = no: F (2.0/1.0)

| | | internet = yes: D (5.0)

| | goout = very low: F (3.0)

| | goout = very high

| | | age <= 17: D (2.0/1.0)

| | | age > 17: F (2.0)

| failures > 1: F (28.0/2.0)

Number of Leaves : 109

Size of the tree : 156

Time taken to build model: 0.07 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 103 32.5949 %

Incorrectly Classified Instances 213 67.4051 %

Kappa statistic 0.1015

Mean absolute error 0.2771

Root mean squared error 0.4633

Relative absolute error 90.9719 %

Root relative squared error 118.7766 %

Total Number of Instances 316

=== Detailed Accuracy By Class ===

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

0.517 0.359 0.462 0.517 0.488 0.155 0.607 0.439 F

0.255 0.174 0.220 0.255 0.236 0.077 0.485 0.169 B

0.271 0.152 0.291 0.271 0.281 0.123 0.593 0.263 D

0.122 0.087 0.172 0.122 0.143 0.040 0.496 0.168 A

0.170 0.123 0.195 0.170 0.182 0.050 0.560 0.181 C

Weighted Avg. 0.326 0.220 0.314 0.326 0.318 0.106 0.563 0.289

=== Confusion Matrix ===

a b c d e <-- classified as

61 18 17 7 15 | a = F

18 13 9 5 6 | b = B

17 13 16 7 6 | c = D

11 8 11 5 6 | d = A

25 7 2 5 8 | e = C