**RESULTS OF NAÏVE BAYES IMPLEMENTED ON BREAST CANCER DATASET IN**

**WEKA**

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=== Run information ===

Scheme: weka.classifiers.bayes.NaiveBayes

Relation: breast-cancer

Instances: 286

Attributes: 10

Class

age

menopause

tumor-size

inv-nodes

node-caps

deg-malig

breast

breast-quad

class-irradiat

Test mode: 10-fold cross-validation

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

Naive Bayes Classifier

Class

Attribute no yes

(0.76) (0.24)

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Class

no-recurrence-events 165.0 38.0

recurrence-events 55.0 32.0

[total] 220.0 70.0

age

30-39 27.0 11.0

40-49 65.0 27.0

60-69 42.0 17.0

50-59 82.0 16.0

70-79 6.0 2.0

20-29 2.0 1.0

[total] 224.0 74.0

menopause

premeno 112.0 40.0

ge40 101.0 30.0

lt40 8.0 1.0

[total] 221.0 71.0

tumor-size

30-34 45.0 17.0

20-24 42.0 10.0

15-19 25.0 7.0

0-4 9.0 1.0

25-29 38.0 18.0

50-54 6.0 4.0

14-Oct 26.0 4.0

40-44 16.0 8.0

35-39 16.0 5.0

9-May 4.0 2.0

45-49 2.0 3.0

[total] 229.0 79.0

inv-nodes

0-2 184.0 31.0

8-Jun 9.0 10.0

11-Sep 4.0 8.0

5-Mar 20.0 18.0

15-17 6.0 2.0

14-Dec 1.0 4.0

24-26 1.0 2.0

[total] 225.0 75.0

node-caps

no 189.0 35.0

yes 29.0 29.0

[total] 218.0 64.0

deg-malig

mean 1.9633 2.3235

std. dev. 0.741 0.6517

weight sum 218 68

precision 1 1

breast

left 118.0 36.0

right 102.0 34.0

[total] 220.0 70.0

breast-quad

left\_low 83.0 29.0

right\_up 28.0 7.0

left\_up 73.0 26.0

right\_low 18.0 8.0

central 20.0 3.0

[total] 222.0 73.0

Time taken to build model: 0 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 214 74.8252 %

Incorrectly Classified Instances 72 25.1748 %

Kappa statistic 0.2684

Mean absolute error 0.2777

Root mean squared error 0.4195

Relative absolute error 76.3847 %

Root relative squared error 98.5193 %

Total Number of Instances 286

=== Detailed Accuracy By Class ===

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

0.858 0.603 0.820 0.858 0.839 0.270 0.760 0.904 no

0.397 0.142 0.466 0.397 0.429 0.270 0.760 0.442 yes

Weighted Avg. 0.748 0.493 0.736 0.748 0.741 0.270 0.760 0.794

=== Confusion Matrix ===

a b <-- classified as

187 31 | a = no

41 27 | b = yes