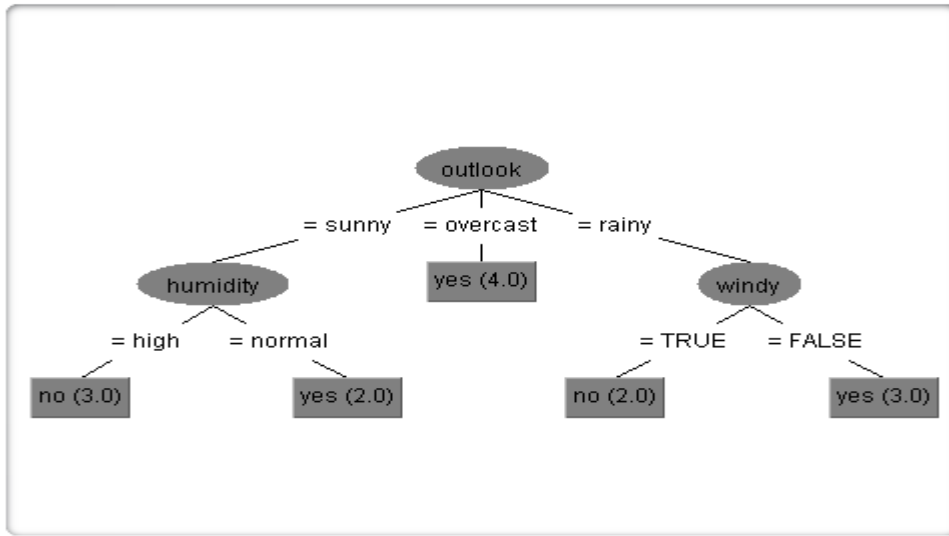


Experiment no. 5

Decision Tree:

Tree View



Preprocess Classify Cluster Associate

Classifier

Choose NaiveBayes

Test options

☐ Use training set

☒ Supplied test set Set...

☐ Cross-validation Folds 10

☐ Percentage split % 66

More options...

(Nom) play

Start Stop

Result list (right-click for options)

- 10:42:02 - rules.ZeroR
- 10:43:32 - bayes.NaiveBayes
- 10:45:06 - bayes.NaiveBayes
- 10:46:07 - bayes.NaiveBayes
- 10:49:09 - bayes.NaiveBayes
- 10:57:53 - trees.J48
- 11:01:24 - bayes.NaiveBayes

Output:

=== Run information ===

Scheme: weka.classifiers.bayes.NaiveBayes

Relation: weather.symbolic

Instances: 14

Attributes: 5

outlook

temperature

humidity

windy

play

Test mode: user supplied test set: size unknown (reading incrementally)

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

Naive Bayes Classifier

	Class	
Attribute	yes	no
	(0.63)	(0.38)

=====

outlook

sunny	3.0	4.0
overcast	5.0	1.0
rainy	4.0	3.0
[total]	12.0	8.0

temperature

hot	3.0	3.0
mild	5.0	3.0
cool	4.0	2.0
[total]	12.0	8.0

humidity

high	4.0	5.0
normal	7.0	2.0
[total]	11.0	7.0

windy

TRUE	4.0	4.0
FALSE	7.0	3.0
[total]	11.0	7.0

Time taken to build model: 0 seconds

=== Evaluation on test set ===

Time taken to test model on supplied test set: 0 seconds

=== Summary ===

Correctly Classified Instances	13	92.8571 %
Incorrectly Classified Instances	1	7.1429 %
Kappa statistic	0.8372	
Mean absolute error	0.2917	
Root mean squared error	0.3392	
Relative absolute error	62.8233 %	
Root relative squared error	70.7422 %	
Total Number of Instances	14	

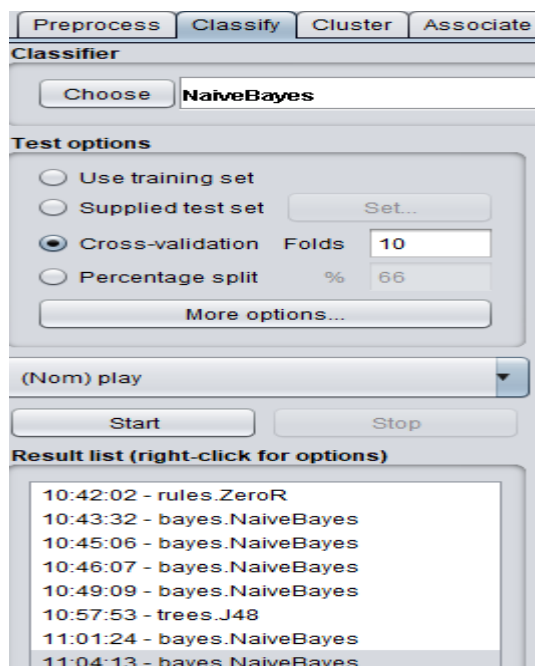
=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area
Class								
	1.000	0.200	0.900	1.000	0.947	0.849	0.922	yes
	0.800	0.000	1.000	0.800	0.889	0.849	0.911	no
Weighted Avg.	0.929	0.129	0.936	0.929	0.926	0.849	0.918	0.934

=== Confusion Matrix ===

```
a b <-- classified as
9 0 | a = yes
1 4 | b = no
```

Cross Validation:



Output:

=== Run information ===

Scheme:

weka.classifiers.bayes.NaiveBayes

Relation: weather.symbolic

Instances: 14

Attributes: 5

outlook

temperature

humidity

windy

play

Test mode: 10-fold cross-validation

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

Naive Bayes Classifier

	Class	
Attribute	yes	no
	(0.63)	(0.38)
=====		
outlook		
sunny	3.0	4.0
overcast	5.0	1.0
rainy	4.0	3.0
[total]	12.0	8.0
temperature		
hot	3.0	3.0
mild	5.0	3.0
cool	4.0	2.0
[total]	12.0	8.0
humidity		
high	4.0	5.0
normal	7.0	2.0
[total]	11.0	7.0
windy		
TRUE	4.0	4.0
FALSE	7.0	3.0
[total]	11.0	7.0

Time taken to build model: 0 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances	8	57.1429 %
Incorrectly Classified Instances	6	42.8571 %
Kappa statistic	-0.0244	
Mean absolute error	0.4374	
Root mean squared error	0.4916	
Relative absolute error	91.8631 %	
Root relative squared error	99.6492 %	

Total Number of Instances 14

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	
PRC Area								Class
	0.778	0.800	0.636	0.778	0.700	-0.026	0.578	0.697 yes
	0.200	0.222	0.333	0.200	0.250	-0.026	0.578	0.557 no
Weighted Avg.	0.571	0.594	0.528	0.571	0.539	-0.026	0.578	0.647

=== Confusion Matrix ===

a b <-- classified as

7 2 | a = yes

4 1 | b = no