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MODUL 9

9.4.1 WEKA

The screenshot shows the WEKA Explorer application window. The 'Classify' tab is selected. The classifier chosen is 'J48 -C 0.25 -M 2'. Under 'Test options', 'Use training set' is selected. The 'Test set' is '(Nom) Bermain_tenis'. The 'Start' button is visible. The 'Classifier output' pane shows the following information:

```
=== Run information ===

Scheme:      weka.classifiers.trees.J48 -C 0.25 -M 2
Relation:    cuaca
Instances:   14
Attributes:  5
Cuaca
Suhu
Kelembaban_udara
Berangin
Bermain_tenis

Test mode:   evaluate on training data

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

J48 pruned tree
-----

Cuaca = Cerah
|  Kelembaban_udara <= 75: YA (2.0)
|  Kelembaban_udara > 75: TIDAK (3.0)
Cuaca = Mendung: YA (4.0)
Cuaca = Hujan
|  Berangin = YA: TIDAK (2.0)
|  Berangin = TIDAK: YA (3.0)

Number of Leaves :    5

Size of the tree :    8
```

=== Evaluation on training set ===

Time taken to test model on training data: 0.01 seconds

=== Summary ===

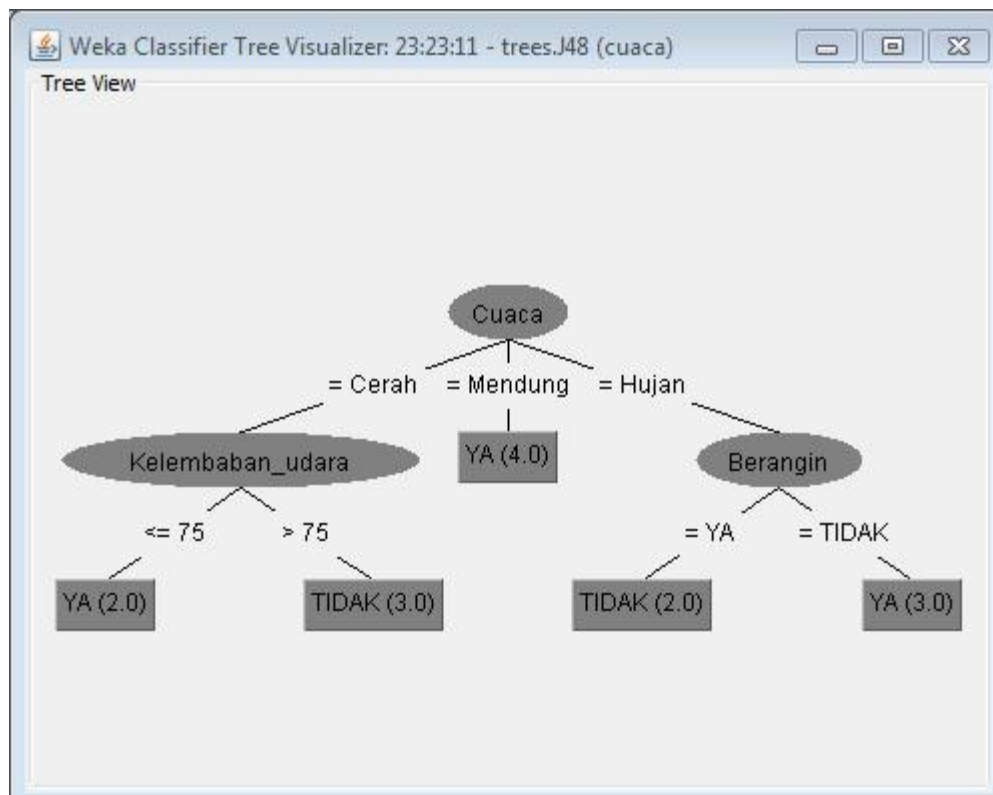
Correctly Classified Instances	14	100	%
Incorrectly Classified Instances	0	0	%
Kappa statistic	1		
Mean absolute error	0		
Root mean squared error	0		
Relative absolute error	0	%	
Root relative squared error	0	%	
Coverage of cases (0.95 level)	100	%	
Mean rel. region size (0.95 level)	50	%	
Total Number of Instances	14		

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	1.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	YA
	1.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	TIDAK
Weighted Avg.	1.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	

=== Confusion Matrix ===

```
a b  <-- classified as
9 0 | a = YA
0 5 | b = TIDAK
```



9.4.2 RAPIDMINER

<new process> - RapidMiner Studio Free 9.3.001 @ LABSI-08-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Find data

Result History ExampleSet (/Local Repository/DataCuaca_Training)

Open in Turbo Prep Auto Model Filter (14 / 14 examples): all

Row No.	Cuaca	Suhu	Kelembaban...	Berangin	Bermain_Te...
2	Cerah	80	90	YA	TIDAK
3	Mendung	83	86	TIDAK	YA
4	Hujan	70	96	TIDAK	YA
5	Hujan	68	80	TIDAK	YA
6	Hujan	65	70	YA	TIDAK
7	Mendung	64	65	YA	YA
8	Cerah	72	95	TIDAK	TIDAK
9	Cerah	69	70	TIDAK	YA
10	Hujan	75	80	TIDAK	YA
11	Cerah	75	70	YA	YA
12	Mendung	72	90	YA	YA
13	Mendung	81	75	TIDAK	YA
14	Hujan	71	91	YA	TIDAK

ExampleSet (14 examples, 0 special attributes, 5 regular attributes)

<new process*> - RapidMiner Studio Free 9.3.001 @ LABSI-08-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Find data, operators...etc

Repository

- Import Data
- Community Samples (connected)
- DB (Legacy)
- Local Repository (LABSI-08)
 - Connections (LABSI-08)
 - data (LABSI-08)
 - processes (LABSI-08)
 - DataCuaca_Training (LABSI-08)

Operators

performance

- Performance (17)
 - Predictive (7)
 - Performance (Classification)
 - Performance (Binomial)
 - Performance (Regression)
 - Performance (Costs)

Process

Process > Cross Validation

100%

Training

Decision Tree

Testing

Apply Model

Performance

Parameters:

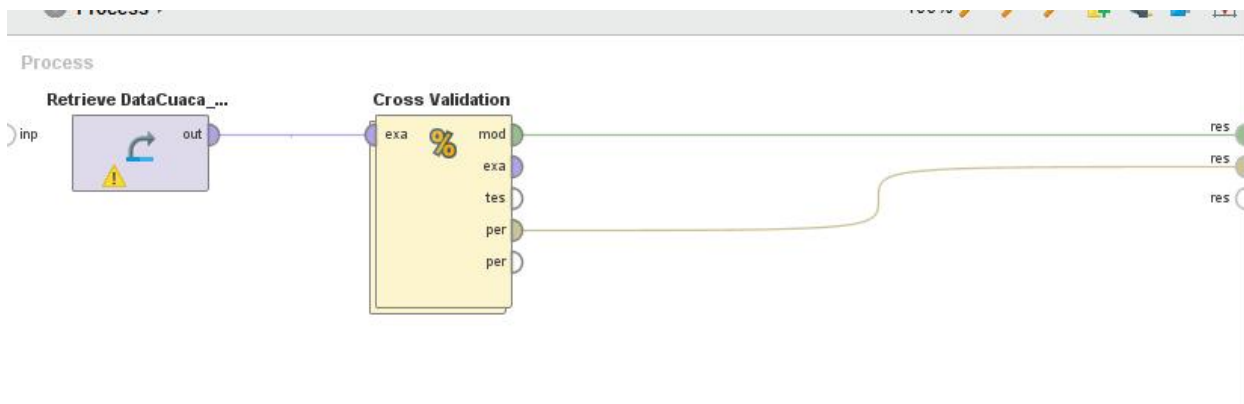
- Cross Validation
 - leave one out
 - number of folds
 - sampling

Help

Cross Validation

Tags: Cross Validation, K-fold, Estimation

Leverage the Wisdom of Crowds to get operator recommendations based on your process design!



Parameters

Decision Tree

critterion

information...

maximal depth

10

☒

apply pruning

confidence

0.1

☒

apply prepruning

minimal gain

0.01

accuracy: 60.00% +/- 45.95% (micro average: 64.29%)

	true TIDAK	true YA	class precision
pred. TIDAK	2	2	50.00%
pred. YA	3	7	70.00%
class recall	40.00%	77.78%	

Zoom

Tree

☒ Node Labels

☒ Edge Labels

