

PRAKTIKUM MODUL 9 (LATIHAN)

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1. Pohon Keputusan Menggunakan WEKA

WEKA GUI Chooser

Program Visualization Tools Help

Applications: Explorer, Experimenter, KnowledgeFlow, Simple CLI

Waikato Environment for Knowledge Analysis
Version 3.7.9
(c) 1999 - 2013
The University of Waikato
Hamilton, New Zealand

WEKA Classifier Tree Visualizer: 09:06:27 - trees.J48 (Cuaca)

Tree View

```
graph TD
    Cuaca -- "= Cerah" --> Klambaban_Udara
    Cuaca -- "= Mendung" --> YA_40[YA (4.0)]
    Cuaca -- "= Hujan" --> Berangin
    Klambaban_Udara -- "<= 75" --> YA_20[YA (2.0)]
    Klambaban_Udara -- "> 75" --> TIDAK_30[TIDAK (3.0)]
    Berangin -- "= YA" --> TIDAK_20[TIDAK (2.0)]
    Berangin -- "= TIDAK" --> YA_30[YA (3.0)]
```

WEKA Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier: Choose J48 -C 0.25 -M 2

Test options: ☒ Use training set, ☐ Supplied test set, ☐ Cross-validation (Folds: 10), ☐ Percentage split (%: 66)

Classifier output

=== Evaluation on training set ===

Time taken to test model on training data: 0.05 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
1.000	0.000	1.000	1.000	1.000	1.000	1.000
1.000	0.000	1.000	1.000	1.000	1.000	1.000
Weighted Avg.	1.000	0.000	1.000	1.000	1.000	1.000

=== Confusion Matrix ===

a b <-- classified as

9 0 | a = YA

0 5 | b = TIDAK

Status: OK

2. Pohon Keputusan Menggunakan RapidMiner

RapidMiner Studio Trial 9.3.001 @ LABSI-19-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

Repository

- Templates
- Time Series
- Tutorials
- DB (Legacy)
- Local Repository (LABSI-19)
 - Connections (LABSI-19)
 - data (LABSI-19)
 - processes (LABSI-19)
 - Tabel_Cuaca (LABSI-19 - v1)

Operators

performance

predictive (7)

- Performance (Classification)
- Performance (Binominal Classification)
- Performance (Regression)
- Performance (Costs)
- Performance (Ranking)
- Performance (Support Vector Classification)

We found "Model Management" in the Marketplace. [Show me!](#)

Process

Process: 100%

Retrieve Tabel_Cuaca

Cross Validation

Parameters

Process

logverbosity: init

logfile:

[Show advanced parameters](#)

[Change compatibility \(9.3.001\)](#)

Help

Process

RapidMiner Studio Core

Synopsis

The root operator which is the outer most operator of every process.

Description

Each process must contain exactly one operator of

<new process*> - RapidMiner Studio Trial 9.3.001 @ LABSI-19-PC

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Operators

performance

Performance (Classification)
Performance (Binominal Classification)
Performance (Regression)
Performance (Costs)
Performance (Ranking)
Performance (Support Vector Classification)

We found "Model Management" in the Marketplace. [Show me!](#)

Process

Process > Cross Validation

100%

Training: tra, mod, exa, wei

Testing: mod, tes, thr, mod, uni, lab, mod, lab, per, exa, tes, per, per

Parameters

Cross Validation

☐ leave one out

number of folds: 10

sampling type: automatic

[Show advanced parameters](#)

[Change compatibility \(9.3.001\)](#)

Help

Cross Validation

Concurrency

Tags: Cross-Validations, Cross-validations, Folds, K-Folds, K-folds, Validations, Estimations, Evaluations, Performances, Splitting, X-Validation, X-Prediction, Validation

Synopsis

This Operator performs a cross validation to estimate the statistical performance of a learning

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

☒ Activate Wisdom of Crowds

<new process*> - RapidMiner Studio Trial 9.3.001 @ LABSI-19-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators...etc All Studio

Result History

PerformanceVector (Performance) x Tree (Decision Tree) x ExampleSet (/Local Repository/Tabel_Cuaca)

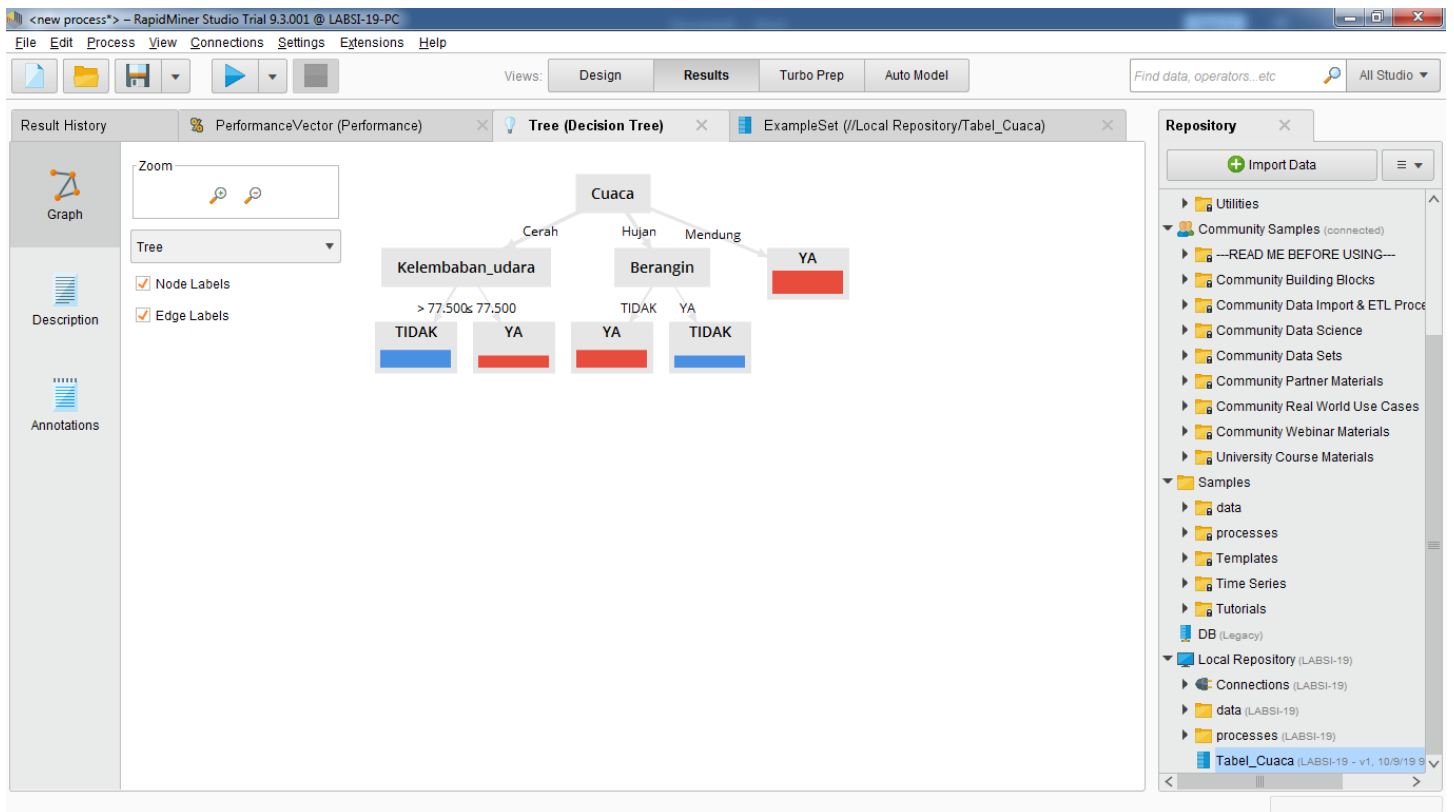
Table View Plot View

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%	

Repository

- Import Data
- Utilities
- Community Samples (connected)
 - READ ME BEFORE USING—
 - Community Building Blocks
 - Community Data Import & ETL Processes
 - Community Data Science
 - Community Data Sets
 - Community Partner Materials
 - Community Real World Use Cases
 - Community Webinar Materials
 - University Course Materials
- Samples
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 - Tabel_Cuaca (LABSI-19 - v1, 10/9/19 9)



<new process*> - RapidMiner Studio Trial 9.3.001 @ LABSI-19-PC

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Views: Design Results Turbo Prep Auto Model

Find data, operators...etc All Studio

Result History PerformanceVector (Performance) Tree (Decision Tree) ExampleSet (/Local Repository/Tabel_Cuaca)

Open in Turbo Prep Auto Model

Filter (14 / 14 examples): all

Row No.	Bermain_Te...	Cuaca	Suhu	Kelembaban...	Berangin
1	TIDAK	Cerah	85	85	TIDAK
2	TIDAK	Cerah	80	90	YA
3	YA	Mendung	83	86	TIDAK
4	YA	Hujan	70	96	TIDAK
5	YA	Hujan	68	80	TIDAK
6	TIDAK	Hujan	65	70	YA
7	YA	Mendung	64	65	YA
8	TIDAK	Cerah	72	95	TIDAK
9	YA	Cerah	69	70	TIDAK
10	YA	Hujan	75	80	TIDAK
11	YA	Cerah	75	70	YA
12	YA	Mendung	72	90	YA
13	YA	Mendung	81	75	TIDAK
14	TIDAK	Hujan	71	91	YA

ExampleSet (14 examples, 1 special attribute, 4 regular attributes)

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