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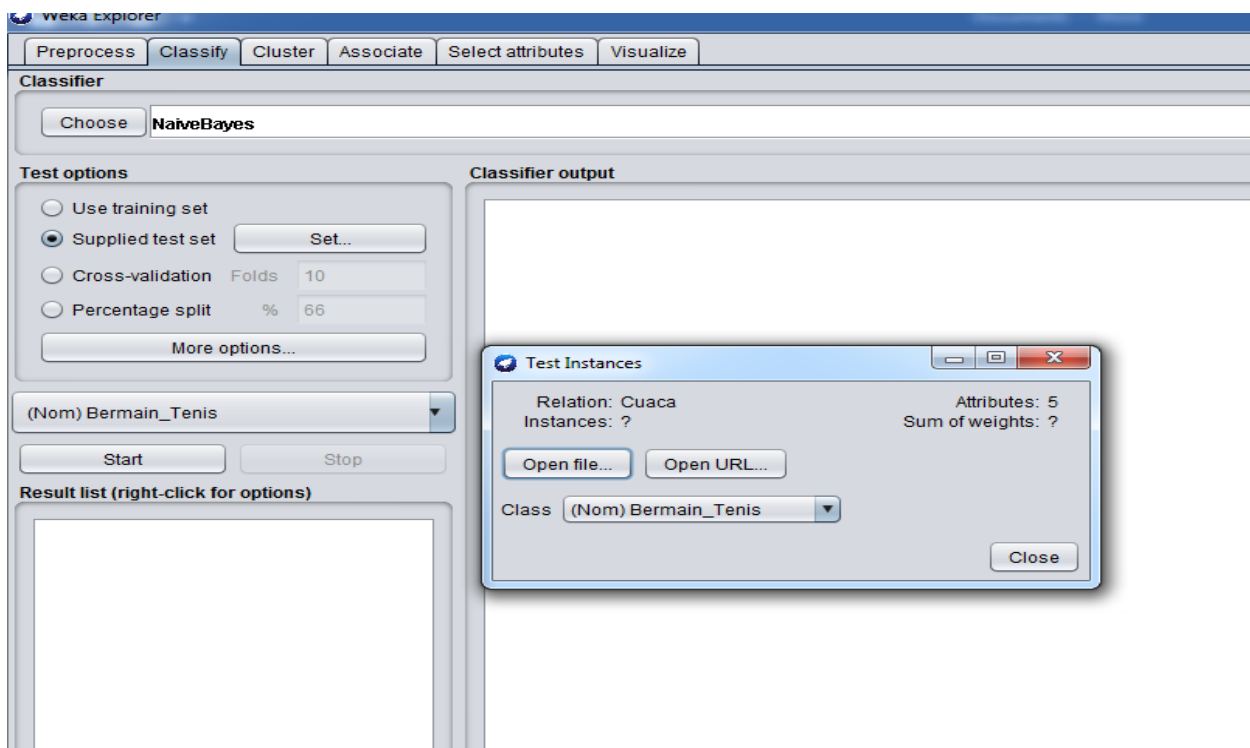
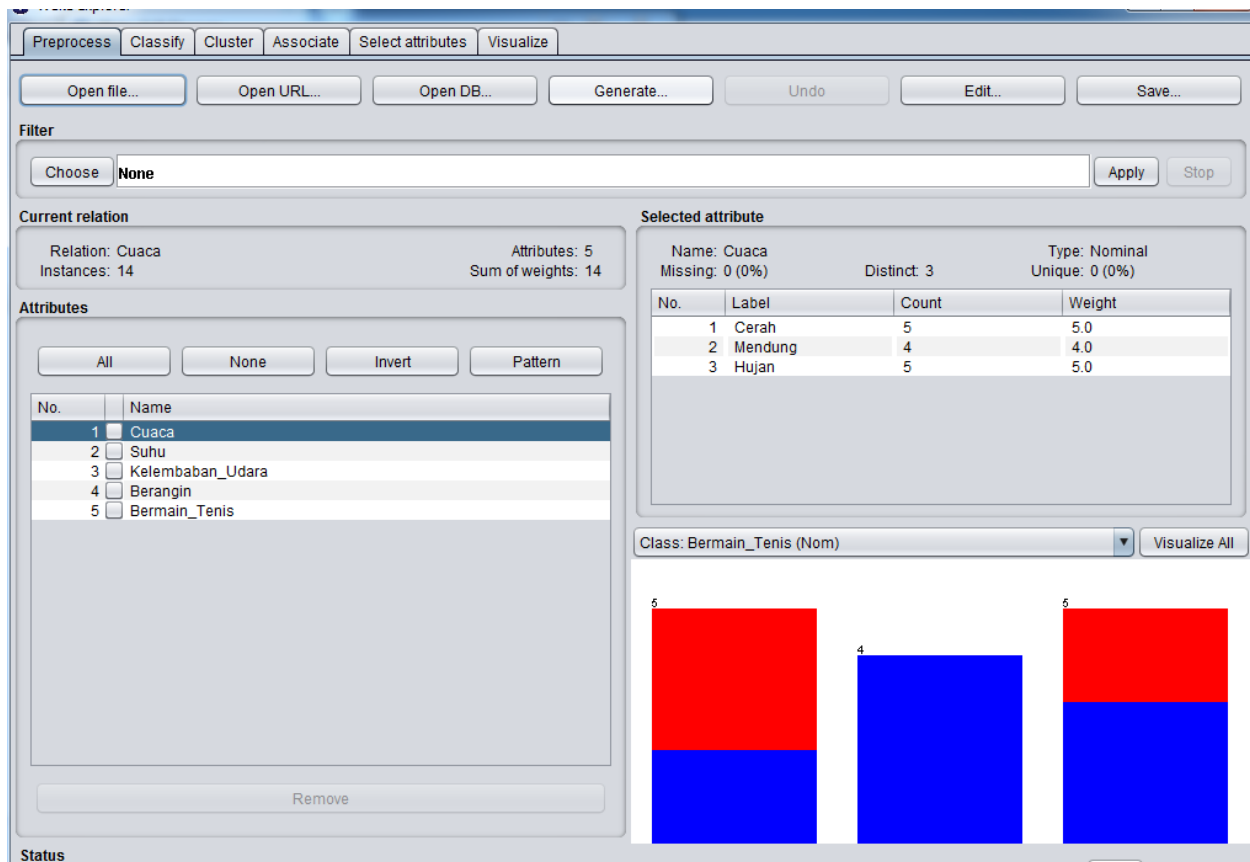
MODUL 8

KLASIFIKASI NAÏVE BAYES

Langkah-langkah Praktikum

Implementa Naïve Bayes dengan Weka

```
Welcome Cuaca.arff CuacaTesting.arff ×
C: > Users > LABSI-20 > Documents > CuacaTesting.arff
1 @relation Cuaca
2
3 @attribute Cuaca {Cerah, Mendung, Hujan}
4 @attribute Suhu real
5 @attribute Kelembaban_Udara real
6 @attribute Berangin {YA, TIDAK}
7 @attribute Bermain_Tenis {YA, TIDAK}
8
9 @data
10 Cerah,75,65,TIDAK,?
11 Cerah,80,68,YA,?
12 Cerah,83,87,YA,?
13 Mendung,70,96,TIDAK,?
14 Mendung,68,81,TIDAK,?
15 Hujan,65,75,YA,?
16 Hujan,64,85,YA,?
```



Weka Explorer

Preprocess Classify Cluster Associate Select attributes Visualize

Classifier

Choose NaiveBayes

Test options

☐ Use training set

☒ Supplied test set Set...

☐ Cross-validation Folds 10

☐ Percentage split % 66

More options...

(Nom) Bermain_Tenis

Start Stop

Result list (right-click for options)

12:55:52 - bayes.NaiveBayes

Classifier output

```

=== Evaluation on test set ===

Time taken to test model on supplied test set: 0.04 seconds

=== Summary ===

Total Number of Instances          0
Ignored Class Unknown Instances      7

=== Detailed Accuracy By Class ===

      TP Rate  FP Rate  Precision  Recall  F-Measure  MCC   ROC Area  PRC Area  Class
      ?      ?      ?      ?      ?      ?      ?      ?      ?
Weighted Avg. ?      ?      ?      ?      ?      ?      ?      ?      ?

=== Confusion Matrix ===

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

Status

OK Log x0

Weka Classifier Visualize: 12:55:52 - bayes.NaiveBayes (Cuaca)

X: Bermain_Tenis (Nom) Y: predicted Bermain_Tenis (Nom)

Colour: Bermain_Tenis (Nom) Select Instance

Reset Clear Open Save Jitter

Plot: Cuaca_predicted

TIDAK

YA

Class colour

YA TIDAK

ARFF-Viewer - Z:\HasilPrediksi.arff

File Edit View

HasilPrediksi.arff

Relation: Cuaca_predicted

No.	1: Cuaca	2: Suhu	3: Kelembaban_Udara	4: Berangin	5: prediction margin	6: predicted Bermain_Tenis	7: Bermain_Tenis
	Nominal	Numeric	Numeric	Nominal	Numeric	Nominal	Nominal
1	Cerah	75.0	65.0	TIDAK	0.762765	YA	
2	Cerah	80.0	68.0	YA	0.087878	YA	
3	Cerah	83.0	87.0	YA	-0.676866	TIDAK	
4	Mend...	70.0	96.0	TIDAK	0.628523	YA	
5	Mend...	68.0	81.0	TIDAK	0.833996	YA	
6	Hujan	65.0	75.0	YA	0.253733	YA	
7	Hujan	64.0	85.0	YA	-0.160143	TIDAK	

Implementasi Naïve Bayes dengan RapidMiner

Import Data - Select the cells to import.

Select the cells to import.

Sheet: Training Cell range: A:E Select All ☒ Define header row: 1

	A	B	C	D	E
1	Cuaca	Suhu	Kelembaban_udara	Berangin	Bermain_tenis
2	Cerah	85.000	85.000	TIDAK	TIDAK
3	Cerah	80.000	90.000	YA	TIDAK
4	Mendung	83.000	86.000	TIDAK	YA
5	Hujan	70.000	96.000	TIDAK	YA
6	Hujan	68.000	80.000	TIDAK	YA
7	Hujan	65.000	70.000	YA	TIDAK
8	Mendung	64.000	65.000	YA	YA
9	Cerah	72.000	95.000	TIDAK	TIDAK
10	Cerah	69.000	70.000	TIDAK	YA
11	Hujan	75.000	80.000	TIDAK	YA
12	Cerah	75.000	70.000	YA	YA
13	Mendung	72.000	90.000	YA	YA
14	Mendung	81.000	75.000	TIDAK	YA
15	Hujan	74.000	84.000	YA	TIDAK

Previous Next Cancel

Import Data - Format your columns.

Format your columns.

☐ Replace errors with missing values ⓘ

	Cuaca <i>polynomial</i>	Suhu <i>integer</i>	Kelembaban_u... <i>integer</i>	Berangin <i>polynomial</i>	Bermain_tenis <i>binomial</i>
1	Cerah	85	85	TIDAK	TIDAK
2	Cerah				
3	Mendung				
4	Hujan				
5	Hujan				
6	Hujan				
7	Mendung				
8	Cerah				
9	Cerah				
10	Hujan				
11	Cerah	75	70	YA	YA
12	Mendung	72	90	YA	YA
13	Mendung	81	75	TIDAK	YA

Change role

Please enter the new role:

label

OK
 Cancel

no problems.

Previous

Next

Cancel

Import Data - Format your columns.

Format your columns.

☐ Replace errors with missing values ⓘ

	Cuaca <i>polynomial</i>	Suhu <i>integer</i>	Kelembaban_u... <i>integer</i>	Berangin <i>polynomial</i>	Bermain_tenis <i>binomial</i>
2	Cerah	80	90	YA	label
3	Mendung	83	86	TIDAK	TIDAK
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

no problems.

Previous

Next

Cancel

<new process> - RapidMiner Studio Trial 9.3.001 @ LABSI-20-PC

File Edit Process View Connections Settings Extensions Help

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

Repository

- DB (Legacy)
- Local Repository (LABSI-20)
 - data (LABSI-20)
 - processes (LABSI-20)
 - DataCuaca_Testing
 - DataCuaca_Training

Operators

apply model

- Modeling (1)
 - Time Series (1)
 - Forecasting (1)
 - Apply Forecast
 - Scoring (1)
 - Apply Model

No results were found.

Process

Process

100%

inp

Retrieve DataCuaca_...

out

Naive Bayes

tra

mod

ex2

Apply Model

mod

uni

lab

mod

res

res

res

res

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

Activate Wisdom of Crowds

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.

<new process> - RapidMiner Studio Trial 9.3.001 @ LABSI-20-PC

File Edit Process View Connections Settings Extensions Help

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

ExampleSet (//Local Repository/DataCuaca_Training)

ExampleSet (//Local Repository/DataCuaca_Training)

ExampleSet (//Local Repository/DataCuaca_Testing)

Result History

Open in Turbo Prep Auto Model

Filter (7 / 7 examples): all

Row No.	prediction(B...	confidence(...	confidence(...	Cuaca	Suhu	Kelembaban...	Berangin
1	YA	0.154	0.846	Cerah	75	65	TIDAK
2	YA	0.498	0.502	Cerah	80	68	YA
3	TIDAK	0.856	0.144	Cerah	83	87	YA
4	YA	0.019	0.981	Mendung	70	96	TIDAK
5	YA	0.007	0.993	Mendung	68	81	TIDAK
6	YA	0.371	0.629	Hujan	65	75	YA
7	TIDAK	0.568	0.432	Hujan	64	85	YA

ExampleSet (7 examples, 3 special attributes, 4 regular attributes)

Repository

Import Data

- Training Resources (connected)
- Samples
- Community Samples (connected)
- DB (Legacy)
- Local Repository (LABSI-20)
 - Connections (LABSI-20)
 - data (LABSI-20)
 - processes (LABSI-20)
 - DataCuaca_Testing (LABSI-20 - v1)
 - DataCuaca_Training (LABSI-20 - v1)

<new process*> - RapidMiner Studio Trial 9.3.001 @ LABSI-20-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators...etc All Studio

ExampleSet (/Local Repository/DataCuaca_Training) ExampleSet (/Local Repository/DataCuaca_Training)

Result History ExampleSet (Apply Model) ExampleSet (/Local Repository/DataCuaca_Testing)

Data

Statistics

Visualizations

Annotations

Name	Type	Missing	Filter (7 / 7 attributes):	Search for Attributes
Prediction prediction(Bermain_tenis)	Binominal	0	Least TIDAK (2)	Most YA (5)
Confidence_TIDAK confidence(TIDAK)	Real	0	Min 0.007	Max 0.856
Confidence_YA confidence(YA)	Real	0	Min 0.144	Max 0.993
Cuaca	Polynomial	0	Least Mendung (2)	Most Cerah (3)
Suhu	Integer	0	Min 64	Max 83
Kelembaban_udara	Integer	0	Min 65	Max 96
Berangin	Binominal	0	Least TIDAK (3)	Most YA (4)

Showing attributes 1 - 7

Examples: 7 Special Attributes: 3 Regular Attributes: 4

Repository

Import Data

- Training Resources (connected)
- Samples
- Community Samples (connected)
- DB (Legacy)
- Local Repository (LABSI-20)
 - Connections (LABSI-20)
 - data (LABSI-20)
 - processes (LABSI-20)
 - DataCuaca_Testing (LABSI-20 - v1)
 - DataCuaca_Training (LABSI-20 - v1)