

Laporan Praktikum



Nama : Fajar Nur Hidayat

NIM : L200170003

Kelas : A

Langkah

8.4

5.

Weka Explorer - Visualize tab

Current relation: Cuaca (Instances: 14)

Selected attribute: Cuaca (Distinct: 3)

No.	Label	Count	Weight
1	Cerah	5	5.0
2	Mendung	4	4.0
3	Hujan	5	5.0

Class: Berman_Tenis (Nom)

Visualize All

Activate Windows: Go to Settings to activate Windows.

14.

Weka Explorer - Classify tab

Classifier: NaiveBayes

Test options: Supplied test set (Fold 10)

Result list: 16:17:20 - NaiveBayes

Classifier output:

```
[total] 12.0 0.0
Subu
mean 72.9697 74.8364
std. dev. 5.2384 7.384
weight sum 9 5
precision 1.9091 1.9091
Kelembaban_Udara
mean 78.8395 86.1111
std. dev. 9.8223 9.2424
weight sum 9 5
precision 3.4444 3.4444
Berangin
YA 4.0 4.0
TIDAK 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: 0.01 seconds

=== Summary ===

Total Number of Instances: 0

Ignored Class Unknown Instances: 7

--- Detailed Accuracy By Class ---

	TP Rate	FP Rate	Precision	Recall	F-Measure	NDC	ROC Area	PRC Area	Class
7	?	?	?	?	?	?	?	?	YA
7	?	?	?	?	?	?	?	?	TIDAK

Weighted Avg. ? ? ? ? ? ? ? ? ?

=== Confusion Matrix ===

```
A b -> classified as
0 0 | a = YA
0 0 | b = TIDAK
```

Activate Windows: Go to Settings to activate Windows.

19.

The screenshot shows two windows. The ARFF-Viewer window displays the following data:

No.	1: Cuaca	2: Suhu	3: Kelembaban_Udara	4: Berangin	5: prediction margin	6: predicted Bermain_Tenis	7: Bermain_Tenis
Normal	Numeric	Numeric	Numeric	Numeric	Numeric	Numeric	Nominal
1	Cerah	75.0	65.0	TIDAK	0.762765	YA	Normal
2	Cerah	80.0	68.0	YA	0.087878	YA	Normal
3	Cerah	83.0	87.0	YA	-0.876866	TIDAK	Normal
4	Mendung	70.0	96.0	TIDAK	0.628523	YA	Normal
5	Mendung	68.0	81.0	TIDAK	0.833996	YA	Normal
6	Hujan	65.0	75.0	YA	0.253733	YA	Normal
7	Hujan	64.0	85.0	YA	-0.160143	TIDAK	Normal

The Notepad window shows the following model information:

```

relation Cuaca_predicted
attribute Cuaca {Cerah,Mendung,Hujan}
attribute Suhu numeric
attribute Kelembaban_Udara numeric
attribute Berangin {YA,TIDAK}
attribute 'prediction margin' numeric
attribute 'predicted Bermain_Tenis' {YA,TIDAK}
attribute Bermain_Tenis {YA,TIDAK}

a
h,75,65,TIDAK,0.762765,YA,?
h,80,68,YA,0.087878,YA,?
h,83,87,YA,-0.876866,TIDAK,?
l,70,96,TIDAK,0.628523,YA,?
l,68,81,TIDAK,0.833996,YA,?
n,65,75,YA,0.253733,YA,?
n,64,85,YA,-0.160143,TIDAK,?
  
```

8.4.2

1.

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E
	Cuaca	Suhu	Kelembaban	Berangin	Bermain_Tenis
1	Cerah	85	85	TIDAK	TIDAK
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

Tabel_Cuaca - Excel (Product Activation Failed)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	Cuaca	Suhu	Kelembaban	Berangin																		
2	Cerah	75	65	TIDAK																		
3	Cerah	80	68	YA																		
4	Cerah	83	87	YA																		
5	Mendung	70	96	TIDAK																		
6	Mendung	68	81	TIDAK																		
7	Hujan	65	75	YA																		
8	Hujan	64	85	YA																		
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						
21																						
22																						
23																						
24																						
25																						
26																						
27																						
28																						
29																						
30																						

Activate Windows
Go to Settings to activate Windows.

Modul 8

File Edit Process View

Repository

- Import Data
- OneDrive
- This PC
- 3D Objects
- Desktop
- Documents
- Downloads
- Music
- Pictures
- Video
- WIND
- DATA
- Network

Operators

- Data Access (53)
- Blending (81)
- Cleansing (29)
- Modeling (160)
- Scoring (14)
- Validation (30)
- Utility (85)
- Extensions (2)

Get more operators from the Marketplace

Select the data location.

File Name	Size	Type	Last Modified
Cuaca.arff	1 KB	ARFF Data File	Oct 2, 2019
CuacaTesting.arff	1 KB	ARFF Data File	Oct 2, 2019
DATATestingSMA.arff	1 KB	ARFF Data File	Oct 2, 2019
DATATrainingSMA.arff	1 KB	ARFF Data File	Oct 2, 2019
HasilData.arff	1 KB	ARFF Data File	Oct 2, 2019
HasilPrediksi.arff	1 KB	ARFF Data File	Oct 2, 2019
SMA_Testing.xlsx	11 KB	Microsoft Excel Worksheet	Oct 2, 2019
Tabel_Cuaca.xlsx	9 KB	Microsoft Excel Worksheet	Oct 2, 2019

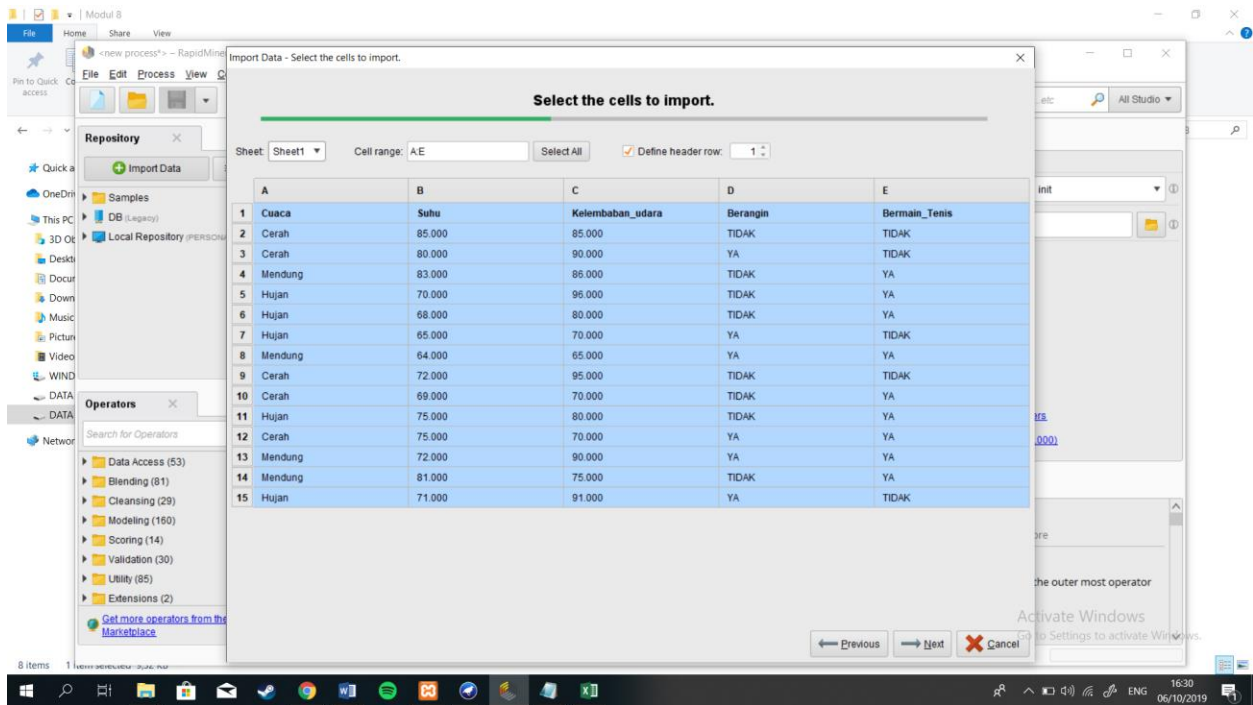
Tabel_Cuaca.xlsx

All Files

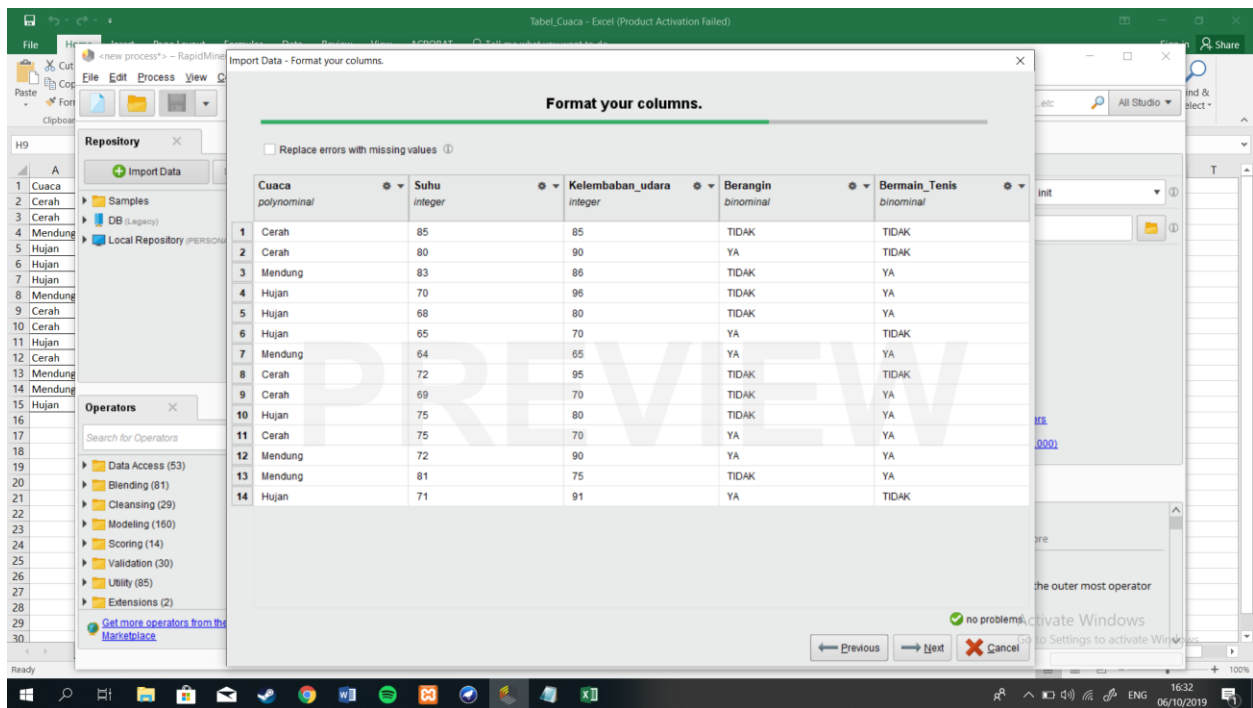
The selected file will be imported as: Excel [Change](#)

Previous Next Cancel

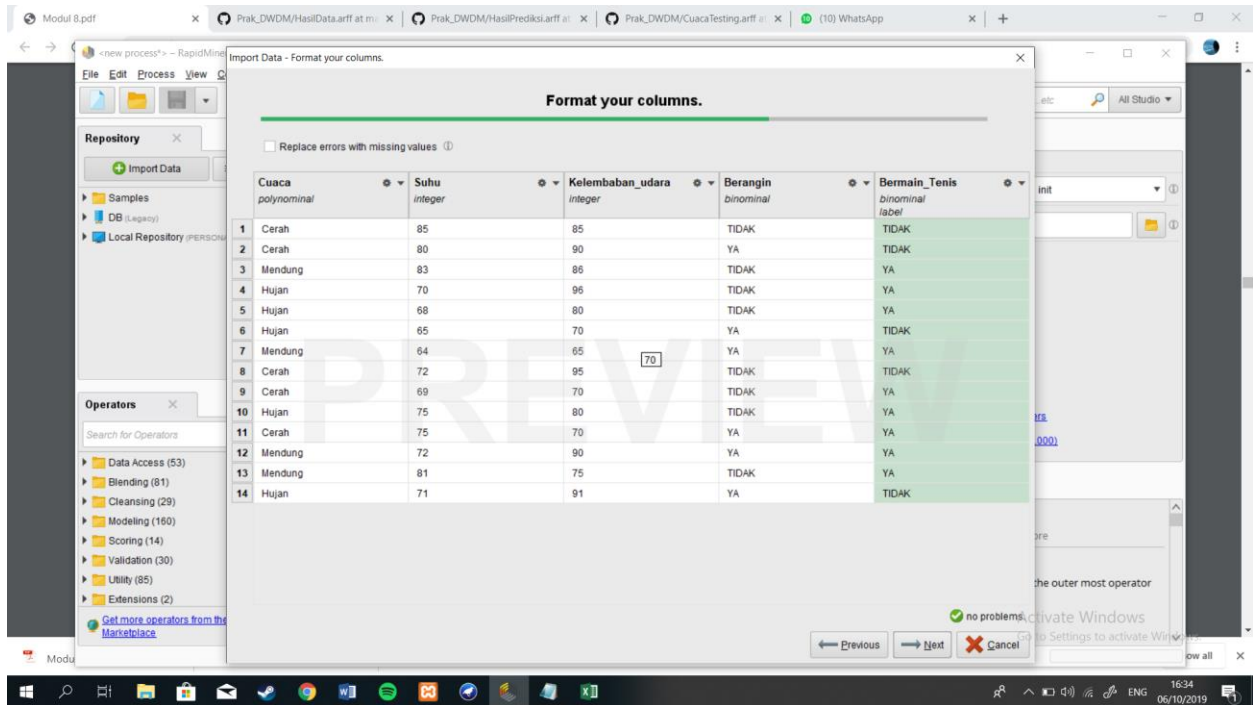
Activate Windows
Go to Settings to activate Windows.



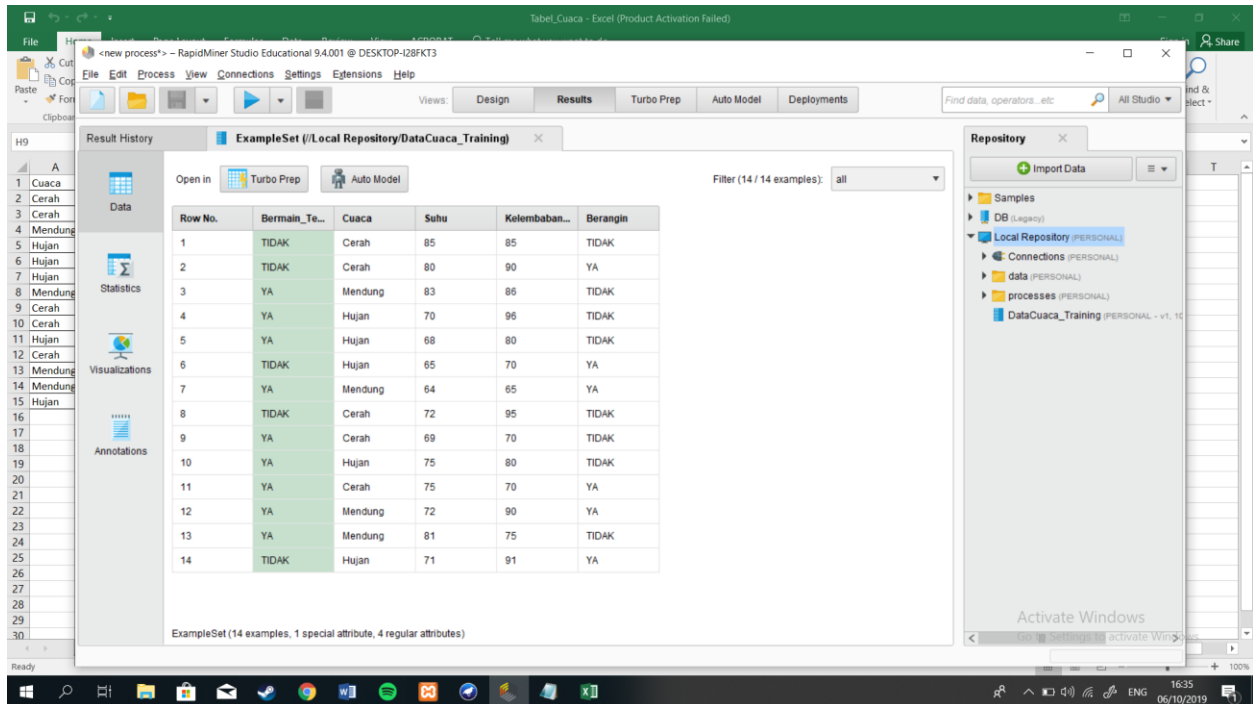
7.



8.



10.



13.

Modul 8.pdf x Prak_DWDM/HasilData.arff x Prak_DWDM/HasilPrediksi... x Prak_DWDM/CuacaTesting... x (10) WhatsApp x New Tab

<new process> - RapidMiner Studio Educational 9.4.001 @ DESKTOP-128FKT3

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Deployments

Find data, operators, etc. All Studio

Result History ExampleSet (/Local Repository/DataCuaca_Testing) ExampleSet (/Local Repository/DataCuaca_Training)

Open in Turbo Prep Auto Model

Filter (7 / 7 examples): all

Row No.	Berangin	Cuaca	Suhu	Kelembaban...
1	TIDAK	Cerah	75	65
2	YA	Cerah	80	68
3	YA	Cerah	83	87
4	TIDAK	Mendung	70	96
5	TIDAK	Mendung	68	81
6	YA	Hujan	65	75
7	YA	Hujan	64	85

ExampleSet (7 examples, 1 special attribute, 3 regular attributes)

Repository

- Import Data
- Samples
- DB (Legacy)
- Local Repository (PERSONAL)
 - Connections (PERSONAL)
 - data (PERSONAL)
 - processes (PERSONAL)
 - DataCuaca_Testing (PERSONAL - v1.1)
 - DataCuaca_Training (PERSONAL - v1.1)

Activate Windows

Windows Taskbar: 16:56 06/10/2019

15.

Modul 8.pdf x Prak_DWDM/HasilData.arff x Prak_DWDM/HasilPrediksi... x Prak_DWDM/CuacaTesting... x (10) WhatsApp x New Tab

<new process> - RapidMiner Studio Educational 9.4.001 @ DESKTOP-128FKT3

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Deployments

Find data, operators, etc. All Studio

Repository

- Import Data
- Samples
- DB (Legacy)
- Local Repository (PERSONAL)
 - Connections (PERSONAL)
 - data (PERSONAL)
 - processes (PERSONAL)
 - DataCuaca_Testing (PERSONAL - v1.1)
 - DataCuaca_Training (PERSONAL - v1.1)

Operators

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

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

Process

Process

Retrieve DataCuaca... (out) → Naive Bayes (tra, mod, esa) → Apply Model (mod, uni, tab, mod)

Retrieve DataCuaca... (out) → Apply Model (mod, uni, tab, mod)

Parameters

logverbosity: init

logfile:

Show advanced parameters

Change compatibility (9.4.000)

Help

Process

RapidMiner Studio Core

Synopsis

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

Description

Activate Windows

Windows Taskbar: 16:58 06/10/2019

17.

Row No.	prediction(B...	confidence(...	confidence(...	Cuaca	Suhu	Kelembapan...	Borangin
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	67	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	65	YA

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

18.

The screenshot shows the Orange3 software interface. The main window is titled 'Example Set (Apply Model)'. It displays a table of attributes with their types, missing values, and statistics. The attributes are:

Name	Type	Missing	Statistics	Filter (7 / 7 attributes):	Search for Attributes
prediction(Bermain_Tenis)	Binomial	0	Least: TIDAK (2), Most: YA (5), Values: YA (5), TIDAK (3)		
confidence(TIDAK)	Real	0	Min: 0.007, Max: 0.856, Average: 0.353		
confidence(YA)	Real	0	Min: 0.144, Max: 0.993, Average: 0.647		
Cuaca	Polynomial	0	Least: Mendung (2), Most: Cerah (3), Values: Cerah (3), Hujan (3), Berawan (2)		
suhu	Integer	0	Min: 64, Max: 83, Average: 72.143		
Kelembapan_udara	Integer	0	Min: 65, Max: 96, Average: 79.571		
Berangin	Polynomial	0	Least: TIDAK (3), Most: YA (4), Values: YA (4), TIDAK (3)		

The right sidebar shows the 'Local Repository' with data sources like 'DataCuaca_Testing' and 'DataCuaca_Training'.

2.

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter
Choose None Apply Stop

Current relation
Relation: Cuaca Instances: 20 Attributes: 6 Sum of weights: 20

Attributes
All None Invert Pattern

No.	Name
1	<input checked="" type="checkbox"/> Jurusan_SMA
2	<input type="checkbox"/> Gender
3	<input type="checkbox"/> Asal_sekolah
4	<input type="checkbox"/> Rerata_SKS
5	<input type="checkbox"/> Asisten
6	<input type="checkbox"/> Lama_Studi

Remove

Selected attribute
Name: Jurusan_SMA Missing: 0 (0%) Distinct: 3 Type: Nominal Unique: 0 (0%)

No.	Label	Count	Weight
1	IPS	6	6.0
2	IPA	10	10.0
3	LAIN	4	4.0

Class: Lama_Studi (Nom) Visualize All

Status
OK Log x 0

Modul 8.pdf - Adobe Acrobat Pro DC
File Edit View Window Help

Home Tools
Modul 8.pdf x

ARFF-Viewer - E:\Data bagus\kuliah\Semester 5\praktikum data mining\Modul 8\HasilData.arff

File Edit View
HasilPrediksi.arff HasilData.arff HasilData.arff

Relation: Cuaca_predicted

No.	1: Jurusan_SMA	2: Gender	3: Asal_sekolah	4: Rerata_SKS	5: Asisten	6: prediction margin	7: predicted Lama_Studi	8: Lama_Studi
1	LAIN	WANITA	SURAKARTA	18.0	TIDAK	0.375862	TERLAMBAT	Nominal
2	IPA	PRIA	SURAKARTA	19.0	YA	-0.836469	TEPAT	Nominal
3	LAIN	PRIA	SURAKARTA	19.0	TIDAK	0.715169	TERLAMBAT	Nominal
4	IPS	PRIA	LUAR	17.0	TIDAK	0.713206	TERLAMBAT	Nominal
5	LAIN	WANITA	SURAKARTA	17.0	TIDAK	0.546846	TERLAMBAT	Nominal
6	IPA	WANITA	LUAR	18.0	YA	-0.757815	TEPAT	Nominal
7	IPA	PRIA	SURAKARTA	18.0	TIDAK	0.125076	TERLAMBAT	Nominal
8	IPA	PRIA	SURAKARTA	19.0	TIDAK	-0.356012	TEPAT	Nominal
9	IPS	PRIA	LUAR	19.0	TIDAK	0.588286	TERLAMBAT	Nominal
10	LAIN	WANITA	SURAKARTA	18.0	TIDAK	0.375862	TERLAMBAT	Nominal

Help
predicted
Cerah,Mendung,Hujan}
meric
ban_Udara numeric
n {YA,TIDAK}
tion margin' numeric
ted Bermain_Tenis' {YA,TIDAK}
_Tennis {YA,TIDAK}

0.762765,YA,?
87878,YA,?
676866,TIDAK,?
K,0.628523,YA,?
K,0.833996,YA,?
53733,YA,?
160143,TIDAK,?

Activate Windows
Go to Settings to activate Windows.

17:09
06/10/2019

3.Data Training

Import Data - Format your columns. ✕

Format your columns.

☐ Replace errors with missing values ⓘ

	Jurusan_SMA <i>polynominal</i>	Gender <i>polynominal</i>	Asal_Sekolah <i>polynominal</i>	Rerata_Sekolah <i>integer</i>	Asisten <i>binominal label</i>
1	LAIN	WANITA	SURAKARTA	18	TIDAK
2	IPA	PRIA	SURAKARTA	19	YA
3	LAIN	PRIA	SURAKARTA	19	TIDAK
4	IPS	PRIA	LUAR	17	TIDAK
5	LAIN	WANITA	SURAKARTA	17	TIDAK
6	IPA	WANITA	LUAR	18	YA
7	IPA	PRIA	SURAKARTA	18	TIDAK
8	IPA	PRIA	SURAKARTA	19	TIDAK
9	IPS	PRIA	LUAR	18	TIDAK
10	LAIN	WANITA	SURAKARTA	18	TIDAK

✓ no problems

⬅ Previous➡ Next✕ Cancel

b.Data Testing

Import Data - Format your columns.

Format your columns.

☐ Replace errors with missing values ⓘ

	<div>Cuaca</div> <div><i>polynomial</i></div>	<div>Suhu</div> <div><i>integer</i></div>	<div>Kelembaban_udara</div> <div><i>integer</i></div>	<div>Berangin</div> <div><i>binominal</i> <i>label</i></div>
1	Cerah	75	65	TIDAK
2	Cerah	80	68	YA
3	Cerah	83	87	YA
4	Mendung	70	96	TIDAK
5	Mendung	68	81	TIDAK
6	Hujan	65	75	YA
7	Hujan	64	85	YA

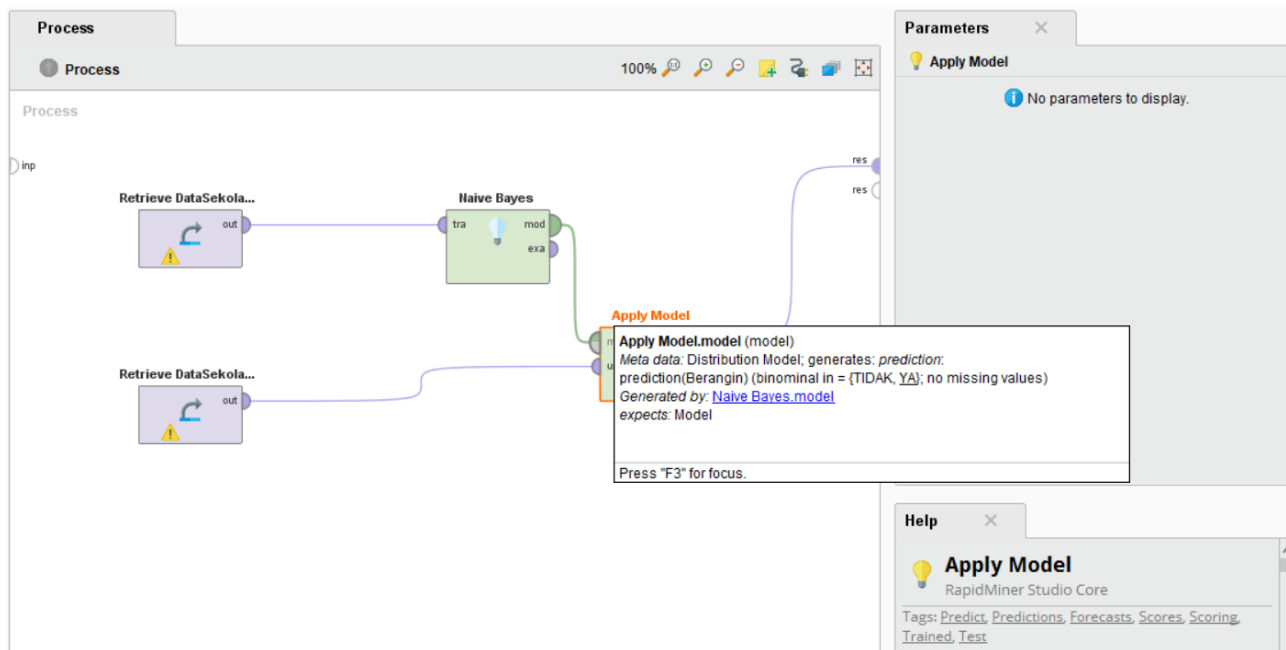
no problems

Previous

Next

Cancel

c.implementasi naïve bayes



d.hasil

Open In [Turbo Prep](#) [Auto Model](#)

Filter (10 / 10 examples): all

Row No.	prediction(L...	confidence(...	confidence(...	Jurusan_SMA	Gender	Asal_Sekolah	Rerata_SKS	Asisten
1	TERLAMBAT	0.648	0.352	LAIN	WANITA	SURAKARTA	18	TIDAK
2	TEPAT	0.005	0.995	IPA	PRIA	SURAKARTA	19	YA
3	TERLAMBAT	0.650	0.350	LAIN	PRIA	SURAKARTA	19	TIDAK
4	TERLAMBAT	0.858	0.132	IPS	PRIA	LUAR	17	TIDAK
5	TERLAMBAT	0.738	0.262	LAIN	WANITA	SURAKARTA	17	TIDAK
6	TEPAT	0.005	0.995	IPA	WANITA	LUAR	18	YA
7	TERLAMBAT	0.547	0.453	IPA	PRIA	SURAKARTA	18	TIDAK
8	TEPAT	0.321	0.679	IPA	PRIA	SURAKARTA	19	TIDAK
9	TERLAMBAT	0.811	0.189	IPS	PRIA	LUAR	18	TIDAK
10	TERLAMBAT	0.648	0.352	LAIN	WANITA	SURAKARTA	18	TIDAK

ExampleSet (10 examples, 3 special attributes, 5 regular attributes)

	Name	Type	Missing	Statistics			Filter (8 / 8 attributes):	Search for Attributes	
✓	Prediction prediction(Lama_Studi)	Binominal	0	Least TEPAT (3)	Most TERLAMBAT (7)	Values TERLAMBAT (7), TEPAT (3)			
✓	Confidence_TERLAMBAT confidence(TERLAMBAT)	Real	0	Min 0.005	Max 0.868	Average 0.524			
✓	Confidence_TEPAT confidence(TEPAT)	Real	0	Min 0.132	Max 0.995	Average 0.476			
✓	Jurusan_SMA	Polynomial	0	Least IPS (2)	Most IPA (4)	Values IPA (4), LAIN (4), ...[1 more]			
✓	Gender	Polynomial	0	Least WANITA (4)	Most PRIA (6)	Values PRIA (6), WANITA (4)			
✓	Asal_Sekolah	Polynomial	0	Least LUAR (3)	Most SURAKARTA (7)	Values SURAKARTA (7), LUAR (3)			

4.

✓	Confidence_TERLAMBAT confidence(TERLAMBAT)	Real	0	Min 0.005	Max 0.868	Average 0.524
✓	Confidence_TEPAT confidence(TEPAT)	Real	0	Min 0.132	Max 0.995	Average 0.476

5.

✓	Prediction prediction(Lama_Studi)	Binominal	0	Least TEPAT (3)	Most TERLAMBAT (7)	Values TERLAMBAT (7), TEPAT (3)
---	---	-----------	---	--------------------	-----------------------	------------------------------------

6.

a.

Import Data - Select the cells to import.

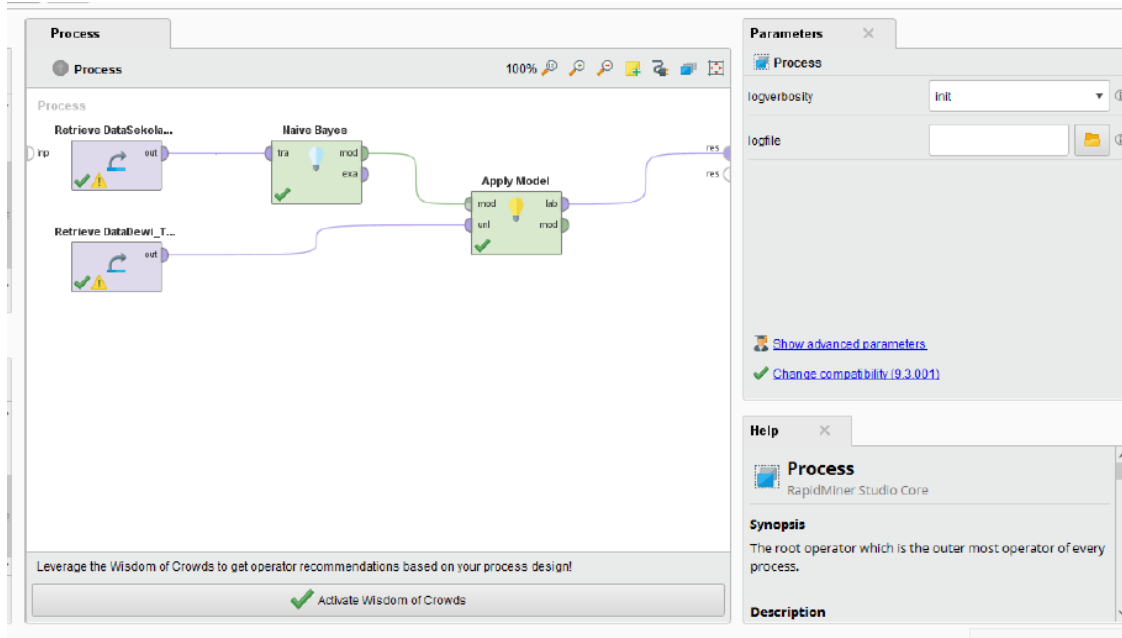
Select the cells to import.

Sheet: Sheet3 ▾ Cell range: A:E Select All ☒ Define header row: 1 ▴ ▾

	A	B	C	D	E
1	Jurusan_SMA	Gender	Asal_Sekolah	Rerata_SKS	Asisten
2	IPA	WANITA	LUAR SURAKARTA	18.000	TIDAK

← Previous Next → ✖ Cancel

b. naive bayes



c. hasil

Name	Type	Missing	Statistics	Filter (8 / 8 attributes)
prediction(Lama_Studi)	Binominal	0	Least TERLAMBAT (0) Most TEPAT (1)	Values TEPAT (1), TERLAMBAT (0)
confidence(TERLAMBAT)	Real	0	Min 0.457 Max 0.457	Average 0.457
confidence(TEPAT)	Real	0	Min 0.543 Max 0.543	Average 0.543
Jurusan_SMA	Polynomial	0	Least IPA (1) Most IPA (1)	Values IPA (1)
Gender	Polynomial	0	Least WANITA (1) Most WANITA (1)	Values WANITA (1)
Asal_Sekolah	Polynomial	0	Least LUAR SURAKARTA (1) Most LUAR SURAKARTA (1)	Values LUAR SURAKARTA (1)
Rerata_SKS	Integer	0	Min 18 Max 18	Average 18
Asisten	Polynomial	0	Least TIDAK (1) Most TIDAK (1)	Values TIDAK (1)

Berdasarkan hasil di atas maka prediksi untuk Dewi dia akan lulus dengan tepat

7.

Import Data - Select the cells to import.

Select the cells to import.

Sheet: Sheet4 Cell range: A:E Select All ☒ Define header row: 1

	A	B	C	D	E
1	Jurusan_SMA	Gender	Asal_Sekolah	Rerata_SKS	Asisten
2	LAIN	PRIA	SURAKARTA	17.000	YA

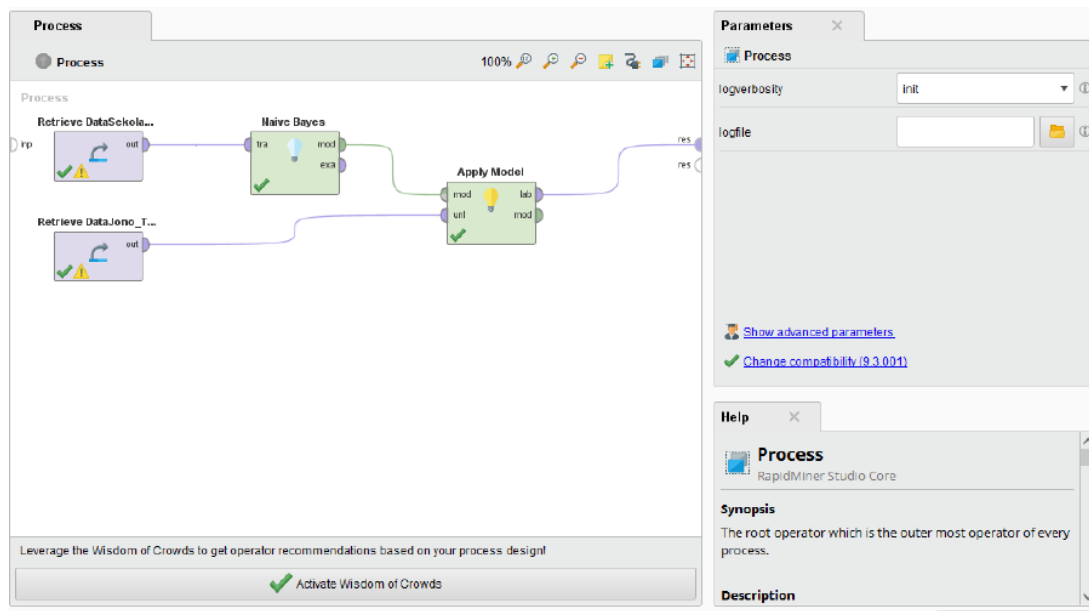
Previous Next Cancel

Open in Turbo Prep Auto Model Filter (1 / 1 examples): all

Row No.	Jurusan_SMA	Gender	Asal_Sekolah	Rerata_SKS	Asisten
1	LAIN	PRIA	SURAKARTA	17	YA

ExampleSet (1 example, 0 special attributes, 5 regular attributes)

b. Naive bayes



c. hasil

Open in Turbo Prep Auto Model Filter (1 / 1 examples):

Row No.	prediction(L...	confidence(...	confidence(...	Jurusan_SMA	Gender	Asal_Sekolah	Rerata_SKS	Asisten
1	TEPAT	0.076	0.924	LAIN	PRIA	SURAKARTA	17	YA

Name	Type	Missing	Statistics
✓ prediction(Lama_Studi)	Binominal	0	Least: TERLAMBAT (0) Most: TEPAT (1) Values: TEPAT (1), TERLAMBAT (0)
✓ confidence(TERLAMBAT)	Real	0	Min: 0.076 Max: 0.076 Average: 0.076
✓ confidence(TEPAT)	Real	0	Min: 0.924 Max: 0.924 Average: 0.924
✓ Jurusan_SMA	Polynomial	0	Least: LAIN (1) Most: LAIN (1) Values: LAIN (1)
✓ Gender	Polynomial	0	Least: PRIA (1) Most: PRIA (1) Values: PRIA (1)
✓ Asal_Sekolah	Polynomial	0	Least: SURAKARTA (1) Most: SURAKARTA (1) Values: SURAKARTA (1)
✓ Rerata_SKS	Integer	0	Min: 17 Max: 17 Average: 17
✓ Asisten	Polynomial	0	Least: YA (1) Most: YA (1) Values: YA (1)

Berdasarkan hasil di atas maka prediksi untuk Jono dia akan lulus dengan tepat