

PRAKTIKUM DATA WAREHOUSING dan DATA MINING

MODUL 11

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KELAS : B

1. LATIHAN

The screenshot displays the RapidMiner Studio Free 9.0.003 interface. The main window shows a data table with 14 rows and 6 columns: Row No., Bermain_Te..., Cuaca, Suhu, Kelembaban..., and Berangin. The data is as follows:

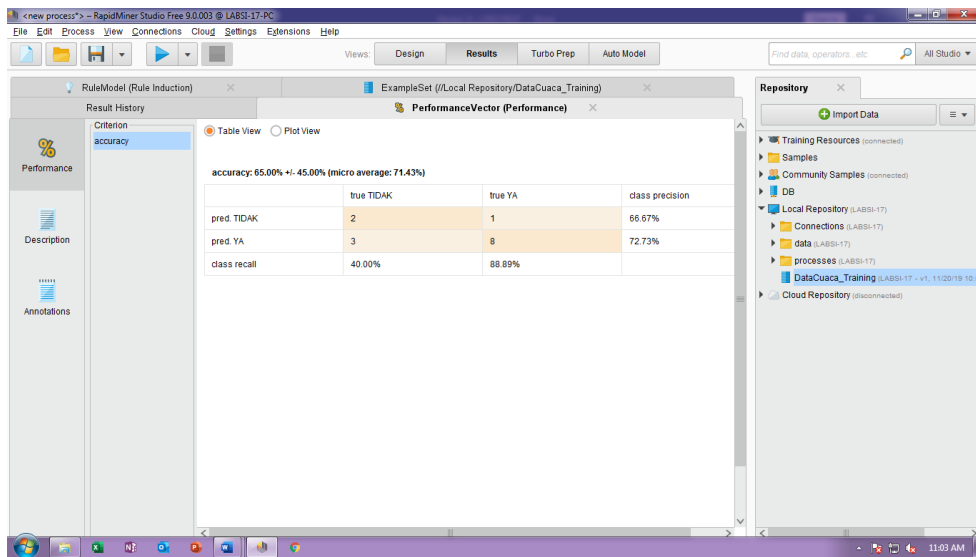
Row No.	Bermain_Te...	Cuaca	Suhu	Kelembaban...	Berangin
1	TIDAK	Cerah	85	85	TIDAK
2	TIDAK	Cerah	80	90	YA
3	YA	Mendung	83	86	TIDAK
4	YA	Hujan	70	96	TIDAK
5	YA	Hujan	68	80	TIDAK
6	TIDAK	Hujan	65	70	YA
7	YA	Mendung	64	65	YA
8	TIDAK	Cerah	72	95	TIDAK
9	YA	Cerah	69	70	TIDAK
10	YA	Hujan	75	80	TIDAK
11	YA	Cerah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

Below the data table, the RuleModel (Rule Induction) window is shown, displaying the following rules:

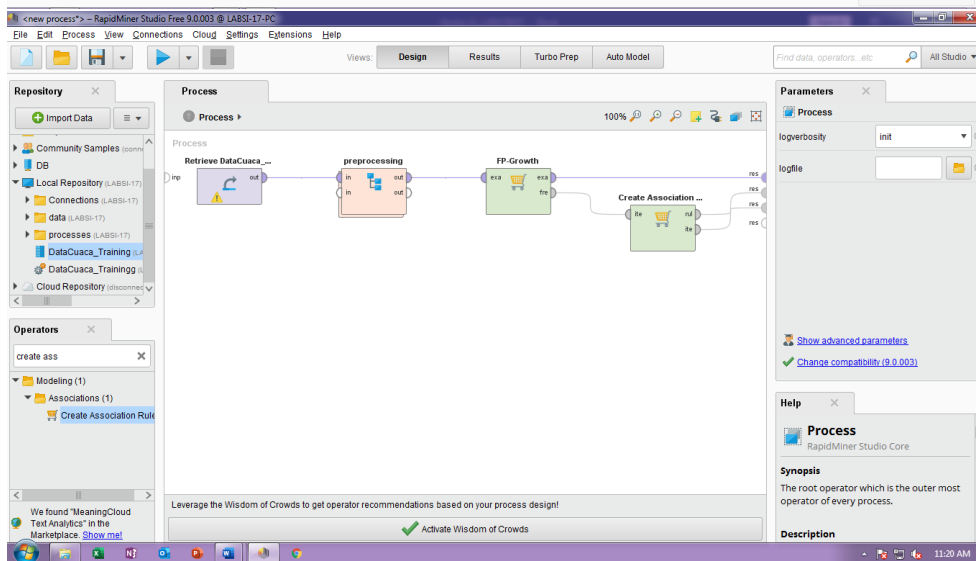
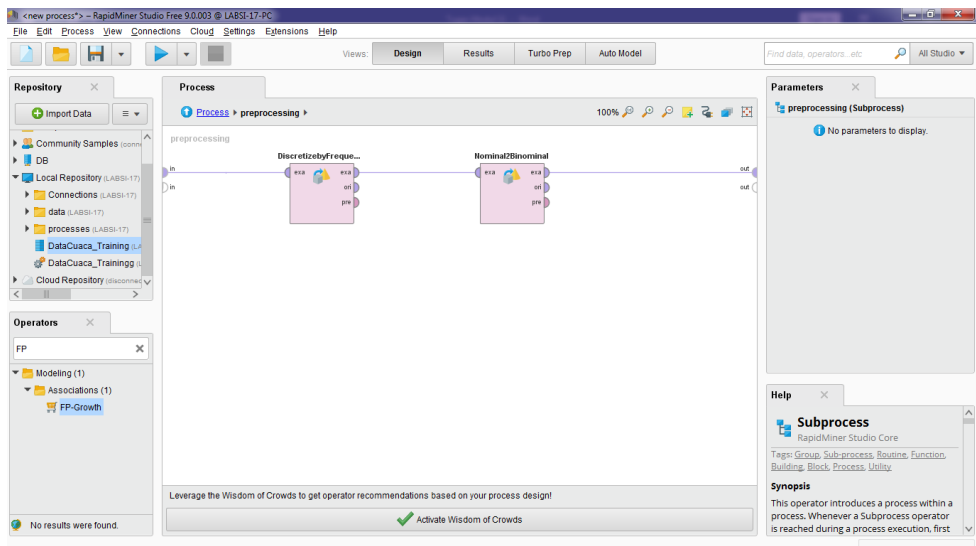
```
if Kelembaban_Udara ≤ 82.500 then YA (1 / 6)
if Cuaca = Cerah then TIDAK (3 / 0)
if Cuaca = Mendung then YA (0 / 2)
if Suhu ≤ 70.500 then YA (0 / 1)
else TIDAK (0 / 0)

correct: 12 out of 13 training examples.
```

The interface also includes a Repository panel on the right with various data sources and a bottom status bar showing the time as 11:02 AM.



2. LATIHAN



ExampleSet (Nominal2Binominal) ExampleSet (Local Repository/DataCuaca_Training)

Result History AssociationRules (Create Association Rules) FrequentItemSets (FP-Growth)

Repository Import Data

Training Resources (connected) Samples Community Samples (connected) DB Local Repository (LABSI-17) Connections (LABSI-17) data (LABSI-17) processes (LABSI-17) DataCuaca_Training (LABSI-17 - v1, 11/20/19 10:05) DataCuaca_Training (LABSI-17 - v1, 11/20/19 11:00) Cloud Repository (disconnected)

No. of Sets: 26
Total Max. Size: 4

Min. Size: 1
Max. Size: 4
Contains Item:
Update View

Size	Support	Item 1	Item 2	Item 3	Item 4
1	0.500	Kelembaban_Uda...			
1	0.429	Berangin			
1	0.429	Suhu			
1	0.357	Cuaca = Cerah			
1	0.357	Cuaca = Hujan			
1	0.286	Cuaca = Mendung			
2	0.214	Kelembaban_Uda...	Berangin		
2	0.214	Kelembaban_Uda...	Suhu		
2	0.214	Kelembaban_Uda...	Cuaca = Cerah		
2	0.143	Kelembaban_Uda...	Cuaca = Hujan		
2	0.143	Kelembaban_Uda...	Cuaca = Mendung		
2	0.143	Berangin	Suhu		
2	0.143	Berangin	Cuaca = Cerah		
2	0.143	Berangin	Cuaca = Hujan		
2	0.143	Berangin	Cuaca = Mendung		
2	0.143	Suhu	Cuaca = Cerah		
2	0.143	Suhu	Cuaca = Hujan		
2	0.143	Suhu	Cuaca = Mendung		
2	0.071	Suhu	Cuaca = Cerah		
2	0.071	Suhu	Cuaca = Hujan		
2	0.071	Suhu	Cuaca = Mendung		

ExampleSet (Nominal2Binominal) ExampleSet (Local Repository/DataCuaca_Training)

Result History AssociationRules (Create Association Rules) FrequentItemSets (FP-Growth)

Repository Import Data

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Show rules matching
all of these conclusions:
Suhu
Cuaca = Cerah

Min. Criterion: confidence
Min. Criterion Value:

No.	Premises	Conclusion	Support
1	Berangin, Suhu	Cuaca = Cerah	0.1
2	Berangin, Cuaca = Cerah	Suhu	0.1
3	Kelembaban_Udara, Berangin, Suhu	Cuaca = Cerah	0.0
4	Kelembaban_Udara, Berangin, Cuaca = Cerah	Suhu	0.0

ExampleSet (Nominal2Binominal) ExampleSet (Local Repository/DataCuaca_Training)

Result History AssociationRules (Create Association Rules) FrequentItemSets (FP-Growth)

Repository Import Data

Training Resources (connected) Samples Community Samples (connected) DB Local Repository (LABSI-17) Connections (LABSI-17) data (LABSI-17) processes (LABSI-17) DataCuaca_Training (LABSI-17 - v1, 11/20/19 10:05) DataCuaca_Training (LABSI-17 - v1, 11/20/19 11:00) Cloud Repository (disconnected)

Zoom

ISOM

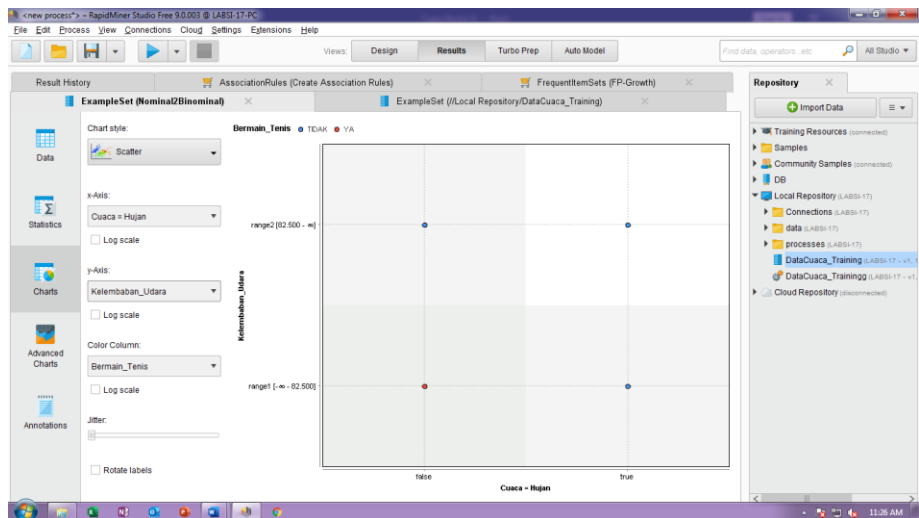
Node Labels
Edge Labels

Filter
Show rules matching
all of these conclusions:
Suhu
Cuaca = Cerah

Min. Criterion: confidence
Min. Criterion Value:

Rule 1 (0.143 / 1.000) Rule 2 (0.143 / 1.000) Rule 3 (0.071 / 1.000) Rule 4 (0.071 / 1.000)

Kelembaban_Udara Suhu Cuaca = Cerah Berangin



TUGAS NO 1

PERFORMANCE

RuleModel (Rule Induction) x ExampleSet (/Local Repository/L200170037_B_Modul 6) x PerformanceVector (Performance)

Result History

Criterion: accuracy

Table View Plot View

accuracy: 65.00% +/- 32.02% (micro average: 65.00%)

	true TERLAMBAT	true TEPAT	class precision
pred TERLAMBAT	4	4	50.00%
pred TEPAT	3	9	75.00%
class recall	57.14%	69.23%	

RuleModel (Rule Induction) x ExampleSet (/Local Repository/L200170037_B_Modul 6) x PerformanceVector (Performance)

Result History

Performance

PerformanceVector

PerformanceVector (Performance)

accuracy: 65.00% +/- 32.02% (micro average: 65.00%)

ConfusionMatrix

	TERLAMBAT	TEPAT
TERLAMBAT	4	4
TEPAT	3	9

RULE MODUL

RuleModel

```

if Rerata_Sekolah > 18,500 then TEFAT (2 / 10)
if Gender = PRIA then TERLANJUT (4 / 0)
if Jurusan_SMA = IPA then TEFAT (0 / 2)
if Jurusan_SMA = IPS then TERLANJUT (1 / 0)
else TEFAT (0 / 0)

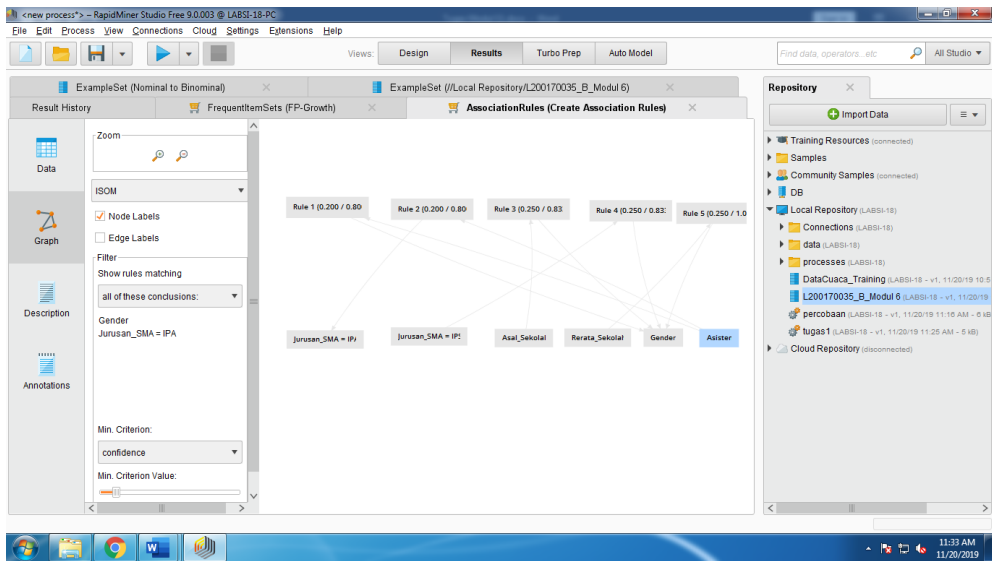
```

002021: 17 out of 19 training examples.

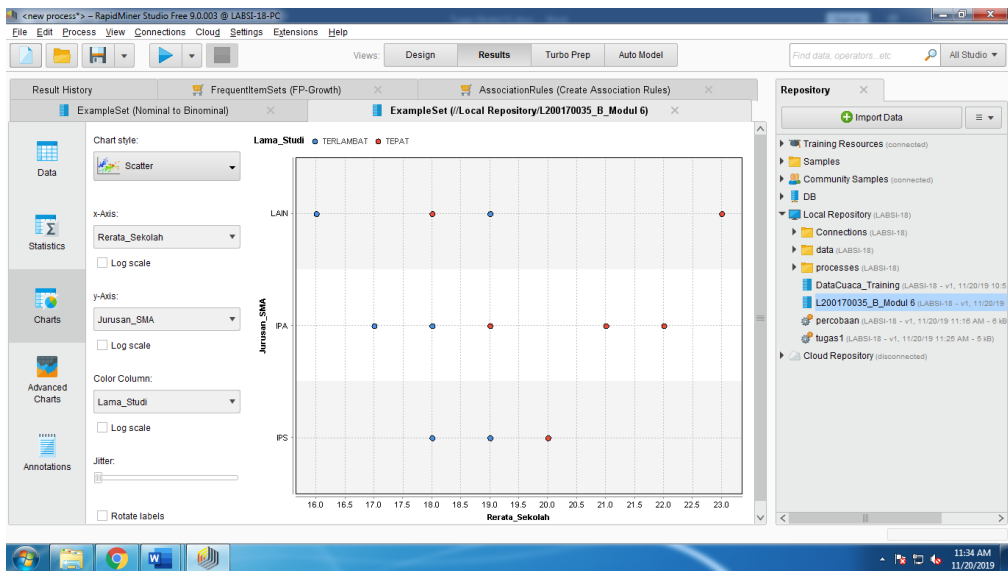
TUGAS 2

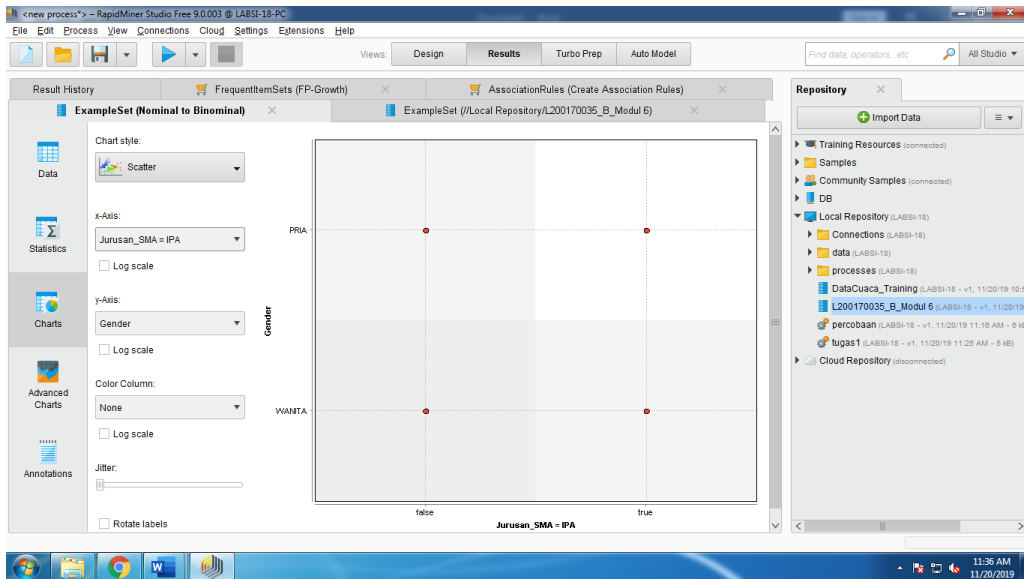
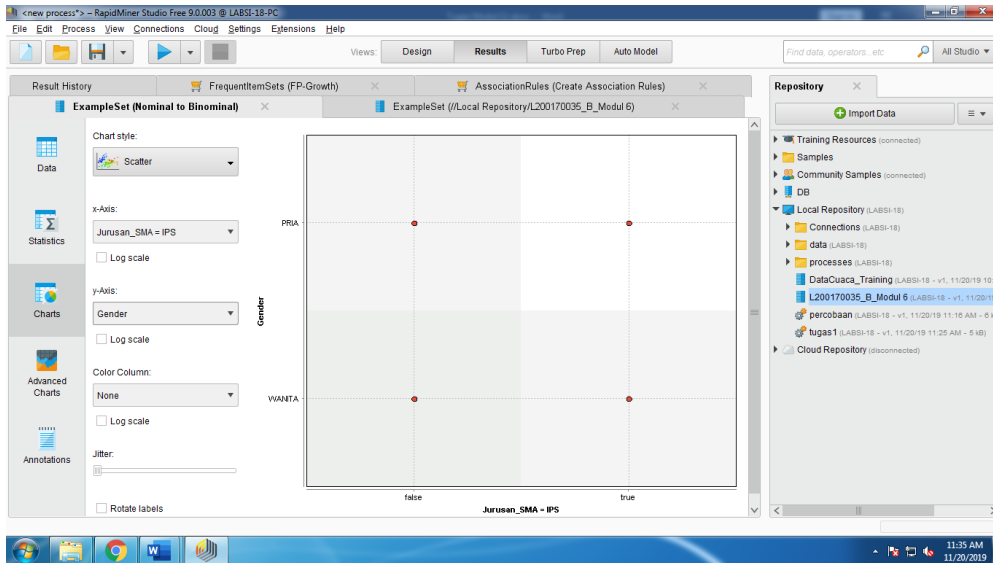
No. of Sets	Size	Support	Item 1	Item 2
1	1	0.750	Gender	
1	1	0.500	Jurusan_SMA = IPA	
1	1	0.300	Asal_Sekolah	
1	1	0.300	Jurusan_SMA = IPS	
1	1	0.250	Asisten	
1	1	0.250	Rerata_Sekolah	
1	1	0.200	Jurusan_SMA = LAIN	
2	2	0.350	Jurusan_SMA = IPA	Jurusan_SMA = IPA
2	2	0.250	Gender	Asal_Sekolah
2	2	0.250	Gender	Jurusan_SMA = IPS
2	2	0.200	Gender	Asisten
2	2	0.250	Gender	Rerata_Sekolah
2	2	0.200	Jurusan_SMA = IPA	Asisten

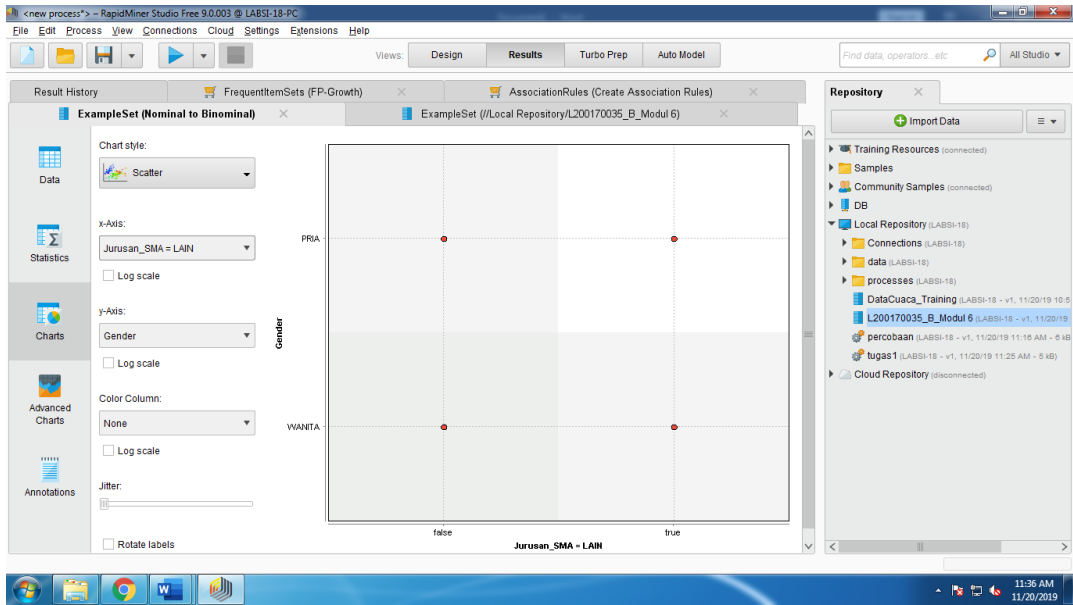
No.	Premises	Conclusion	Support
3	Asal_Sekolah	Gender	0.2
4	Jurusan_SMA = IPS	Gender	0.2
5	Rerata_Sekolah	Gender	0.2



p-s	Lift	Convicti...
0.025	1.111	1.500
0.025	1.111	1.500
0.062	1.333	∞







2B

The screenshot shows the RapidMiner Studio interface with the "FrequentItemSets (FP-Growth)" results table. The table has columns: "Size", "Support", "Item 1", and "Item 2". The table contains 19 rows of frequent itemsets. The left sidebar shows the "Data" tab and the "Annotations" section. The right sidebar shows the "PerformanceVector (Performance)" tab.

Size	Support	Item 1	Item 2
1	0.750	Gender	
1	0.500	Jurusan_SMA = IPA	
1	0.400	Rerata_Sekolah = range1 [-∞ - 18.500]	
1	0.350	Rerata_Sekolah = range2 [18.500 - 19.500]	
1	0.300	Asal_Sekolah	
1	0.300	Jurusan_SMA = IPS	
1	0.250	Asisten	
1	0.250	Rerata_Sekolah = range3 [19.500 - ∞]	
1	0.200	Jurusan_SMA = LAIN	
2	0.350	Gender	Jurusan_SMA = IPA
2	0.200	Gender	Rerata_Sekolah = range1 [-∞ - 18.500]
2	0.300	Gender	Rerata_Sekolah = range2 [18.500 - 19.500]
2	0.250	Gender	Asal_Sekolah
2	0.250	Gender	Jurusan_SMA = IPS
2	0.200	Gender	Asisten

2	0.250	Gender	Rerata_Sekolah = range3 [19.500 - ∞]
2	0.200	Jurusan_SMA = IPA	Rerata_Sekolah = range1 [-∞ - 18.500]
2	0.200	Jurusan_SMA = IPA	Rerata_Sekolah = range2 [18.500 - 19.500]
2	0.200	Jurusan_SMA = IPA	Asisten

Local Repository/tugas 2.b - RapidMiner Studio Free 9.3.001 @ LABSI-23-PC

File Edit Process View Connections Settings Extensions Help

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

Result History

AssociationRules (Create Association Rules) ExampleSet (Nominal to Binominal) FrequentItemSets (FP-Growth) PerformanceVector (Performance)

Show rules matching
all of these conclusions: Gender, Jurusan_SMA = IPA

No.	Premises	Conclusion	Support	Confidence	LaPlace	Gain	p-s
3	Asal_Sekolah	Gender	0.250	0.833	0.962	-0.350	0.025
4	Jurusan_SMA = IPS	Gender	0.250	0.833	0.962	-0.350	0.025
5	Rerata_Sekolah = range2 [18.500 - 19.500]	Gender	0.300	0.857	0.963	-0.400	0.038
6	Rerata_Sekolah = range3 [19.500 - ∞]	Gender	0.250	1	1	-0.250	0.062

Min. Criterion: confidence

Min. Criterion Value:

Lift	Convicti...
1.111	1.500
1.111	1.500
1.143	1.750
1.333	∞

