

Nama : Titis Ulfa Mustikawati

NIM : L200170057

Kelas : C

## MODUL 9

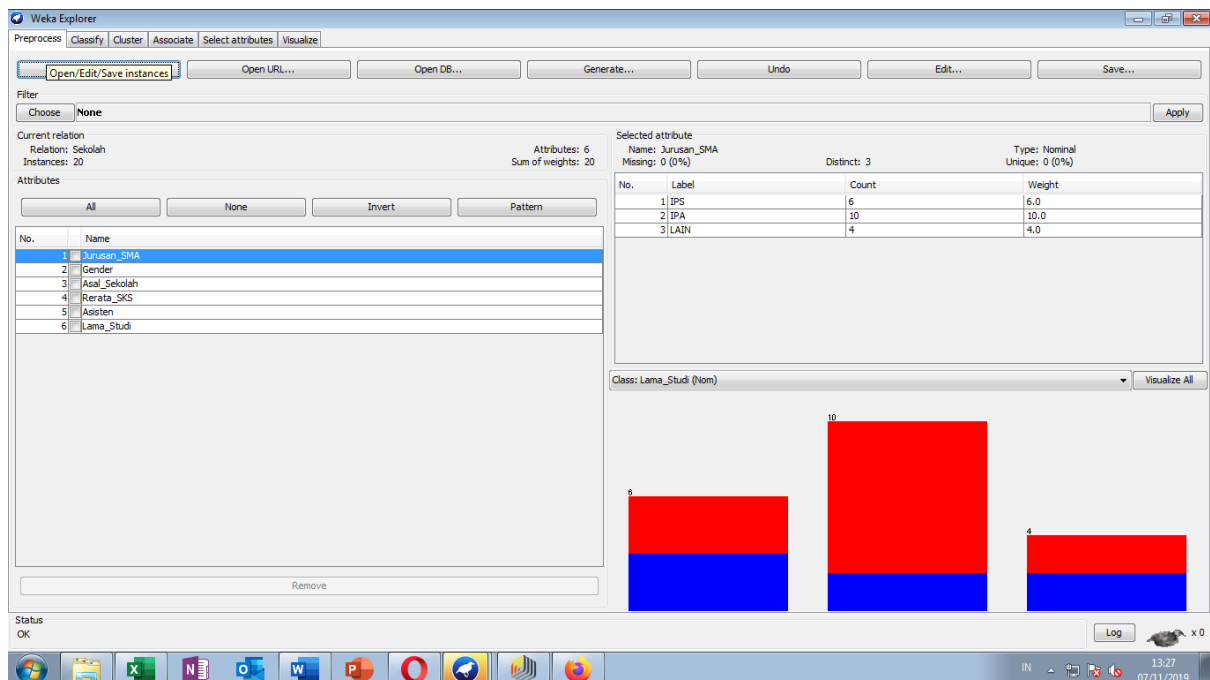
### TUGAS

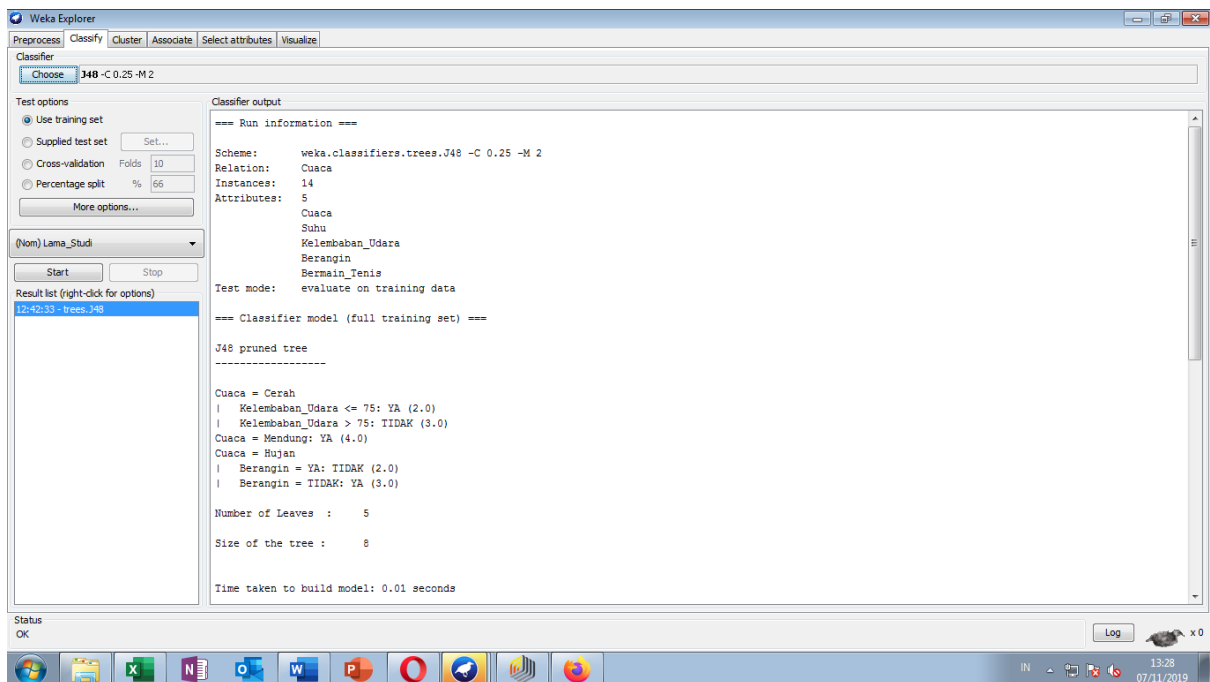
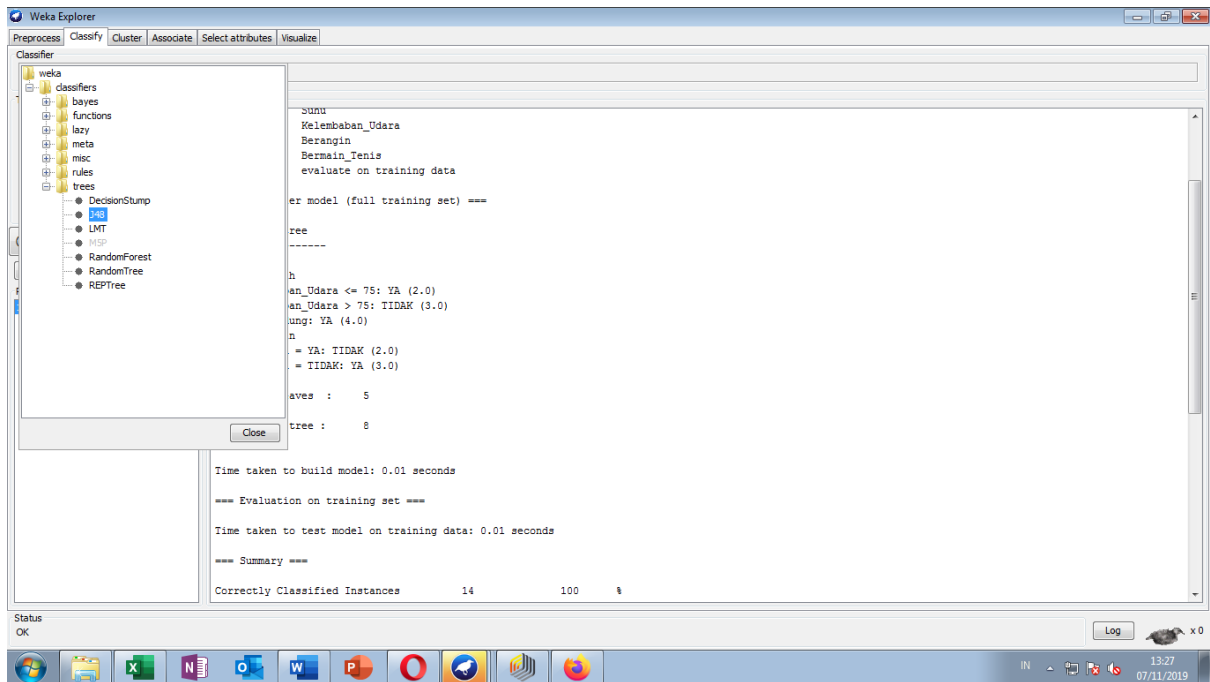
#### 1. Pohon keputusan menggunakan RapidMiner

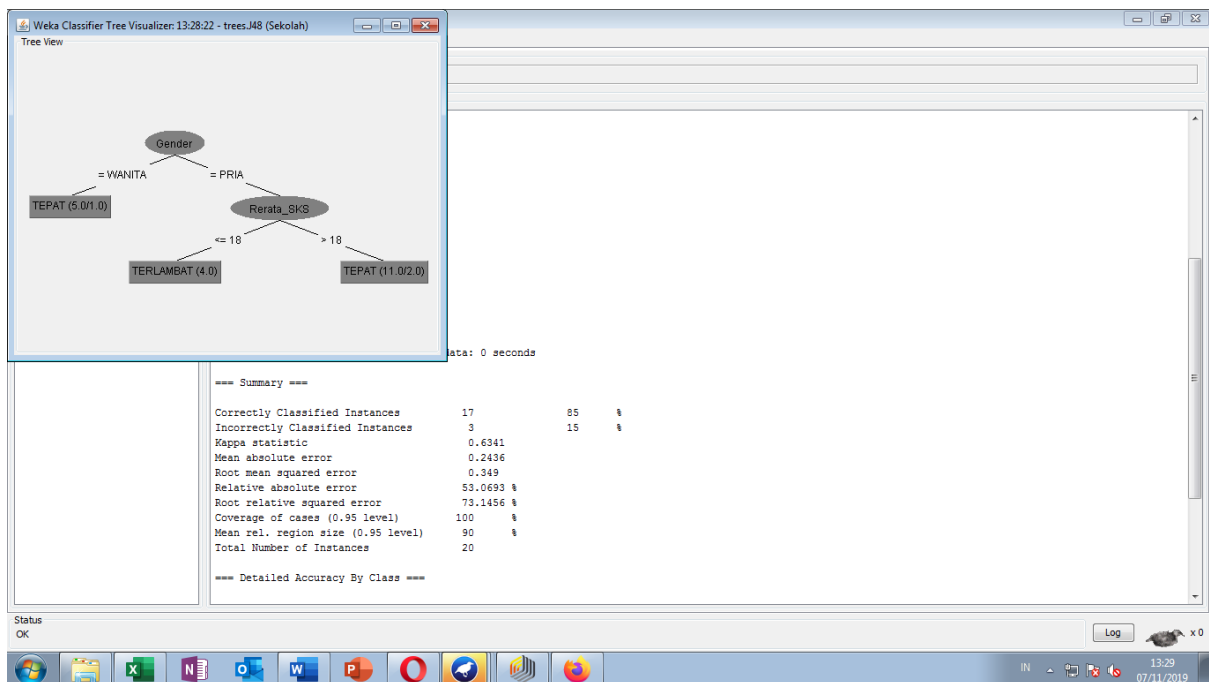
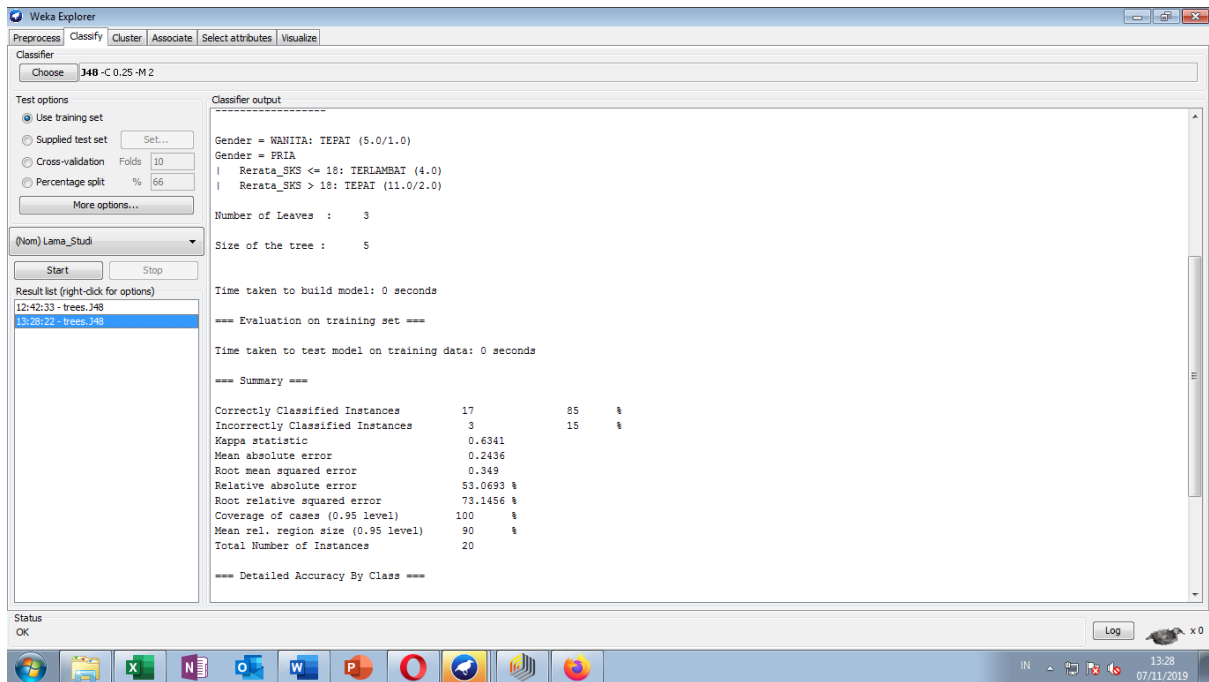
Cuaca	Suhu	Kelembaban_udara	Berangin	Bermain_Tenis
Cerah	75	65	TIDAK	YA
Cerah	80	68	YA	YA
Cerah	83	87	YA	TIDAK
Mendung	70	96	TIDAK	YA
Mendung	68	81	TIDAK	YA
Hujan	65	75	TIDAK	YA
Hujan	64	85	YA	TIDAK

#### 2. Pohon keputusan menggunakan Weka (Sekolah.arff)

##### a. Buat dan cetak pohon keputusan



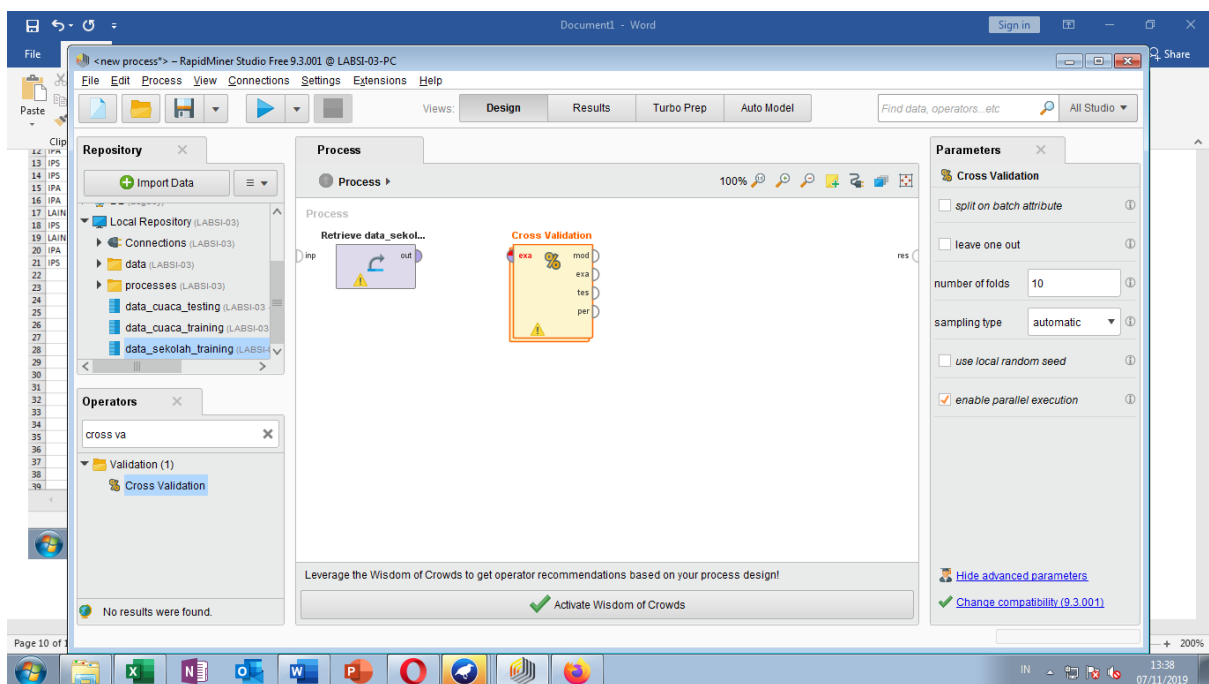
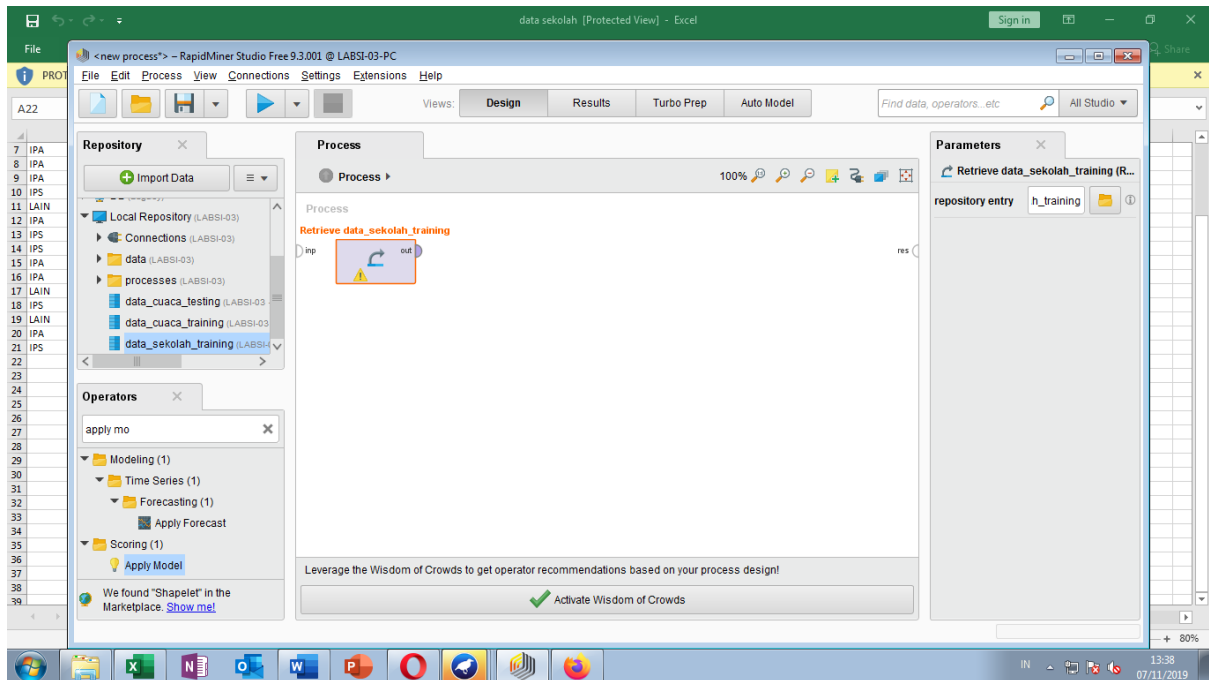




b. Nilai – nilai parameter

- 1) Jumlah simpul daun pada pohon keputusan = 3
- 2) Jumlah simpul keseluruhan pada pohon keputusan = 5
- 3) Waktu yang dibutuhkan untuk proses pelatihan = 0 detik
- 4) Tingkat ketepatan klasifikasi = 85%
- 5) Tingkat ketidaktepatan klasifikasi = 15%

3. Pohon keputusan menggunakan RapidMiner (Data Sekolah.xlsx)
  - a. Buat dan cetak pohon keputusan



new process - RapidMiner Studio Free 9.3.001 @ LABSI-03-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

**Repository**

- Community Samples (connectivity)
- DB (Legacy)
- Local Repository (LABSI-03)
  - Connections (LABSI-03)
  - data (LABSI-03)
  - processes (LABSI-03)
    - data\_cuaca\_testing (LABSI-03 - v1.1)
    - data\_cuaca\_training (LABSI-03 - v1.1)
    - data\_sekolah\_training (LABSI-03 - v1.1)

**Operators**

performance

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

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

**Process**

Process

100%

Retrieve data\_sekol... Cross Validation

res res

**Parameters**

Cross Validation

- ☐ split on batch attribute
- ☐ leave one out
- number of folds: 10
- sampling type: automatic
- ☐ use local random seed
- ☒ enable parallel execution

[Hide advanced parameters](#)

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

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

Activate Wisdom of Crowds

14:05 07/11/2019

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new process - RapidMiner Studio Free 9.3.001 @ LABSI-03-PC

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

**Process**

Process

100%

Training Testing

Decision Tree Apply Model Performance

tra tra mod mod mod mod lab lab per per tes tes

**Parameters**

Cross Validation

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- ☐ leave one out
- number of folds: 10
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[Hide advanced parameters](#)

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

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

Activate Wisdom of Crowds

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Sign in

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Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

Repository

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  - processes (LABSI-03)
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  - data\_cuaca\_training (LABSI-03)
  - data\_sekolah\_training (LABSI-03)

Operators

performance

- Performance (r)
- Performance (Classification)
- Performance (Binomial)
- Performance (Regression)
- Performance (Costs)
- Performance (Ranking)

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

Process

Process > Cross Validation

100%

Training

Testing

Decision Tree

Apply Model

Performance

Parameters

Decision Tree

criterion: Information\_...

maximal depth: 10

☒ apply pruning

confidence: 0.1

☒ apply prepruning

minimal gain: 0.01

minimal leaf size: 2

minimal size for s...: 4

number of prepru...: 3

[Hide advanced parameters](#)

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☒ Activate Wisdom of Crowds

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Sign in

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

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Performance

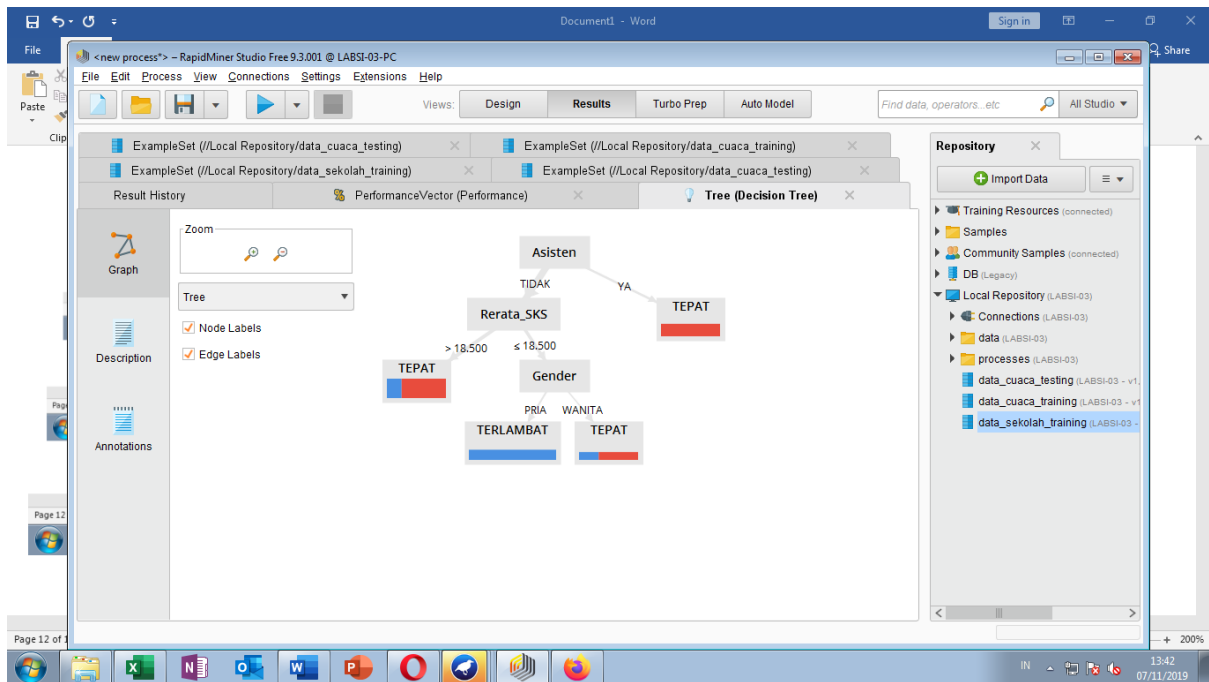
Criterion: accuracy

Table View Plot View

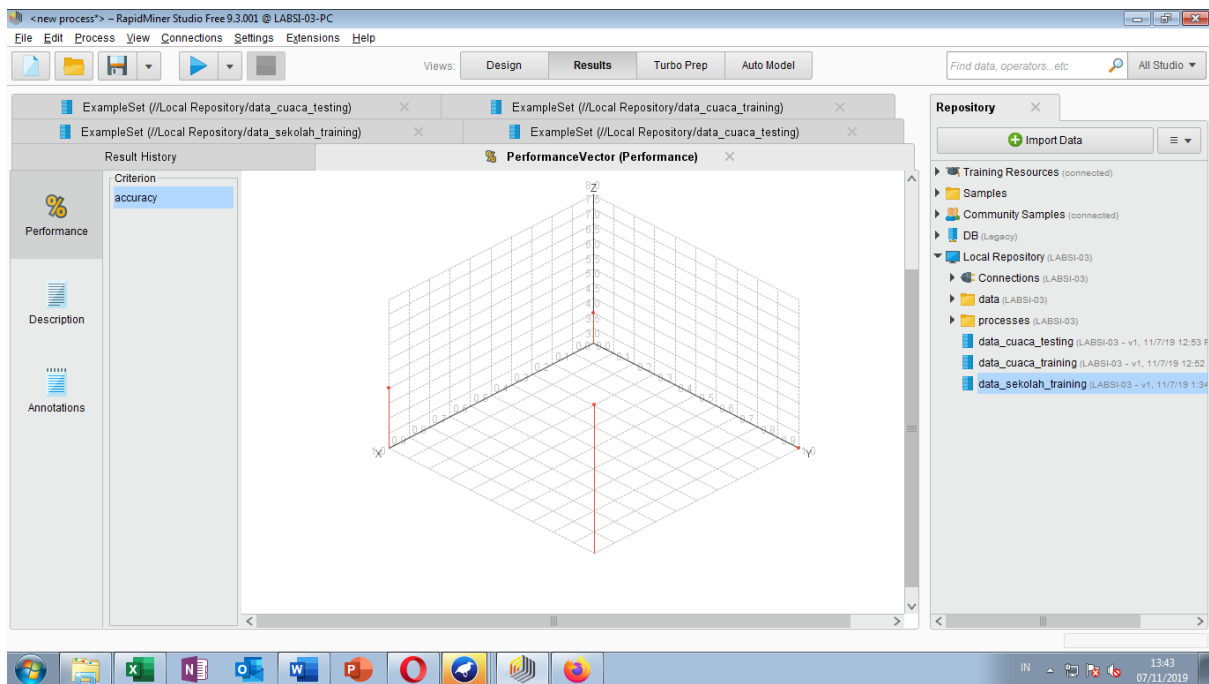
accuracy: 60.00% +/- 21.08% (micro average: 60.00%)

	true TERLAMBAT	true TEPAT	class precision
pred. TERLAMBAT	4	5	44.44%
pred. TEPAT	3	8	72.73%
class recall	57.14%	61.54%	

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b. Cetak perspektif Plot View dengan model Scatter



4. Klasifikasi yang terbentuk dari pohon keputusan no 2 yaitu:
  - a. Seseorang akan Lama\_Studi (TERLAMBAT) jika kondisi sebagai berikut:
    - i. Gender = Pria, Rerata\_SKS  $\leq 18$ , (nilai atribut lain diabaikan)
  - b. Seseorang akan Lama\_Studi (TEPAT) jika kondisi sebagai berikut:
    - i. Gender = Wanita
    - ii. Gender = Pria, Rerata\_SKS  $> 18$ , (nilai atribut lain diabaikan)