

Nama : Hada Hidayat  
 NIM : L200170100  
 Kelas : D  
 Modul : 9

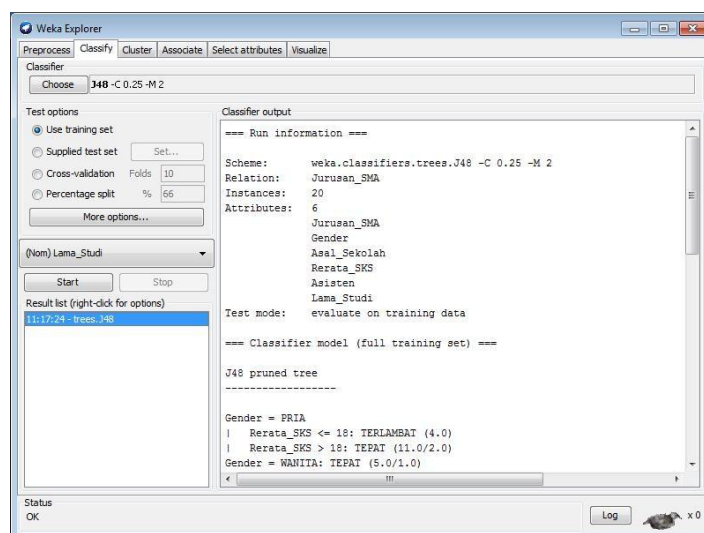
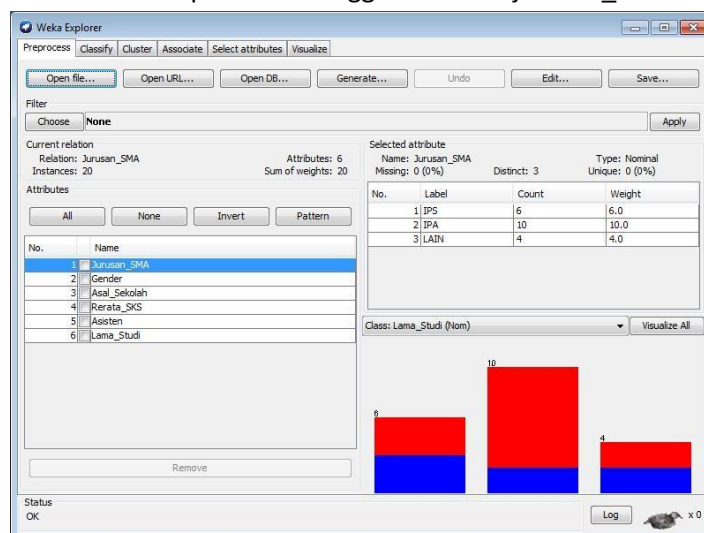
## TUGAS

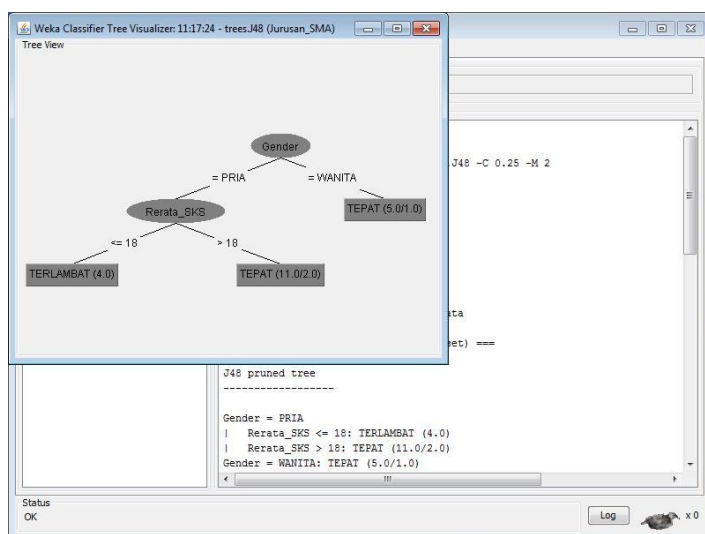
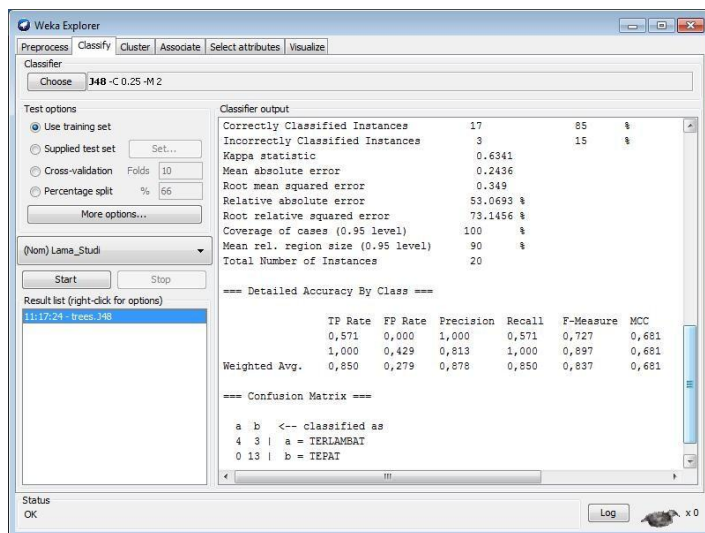
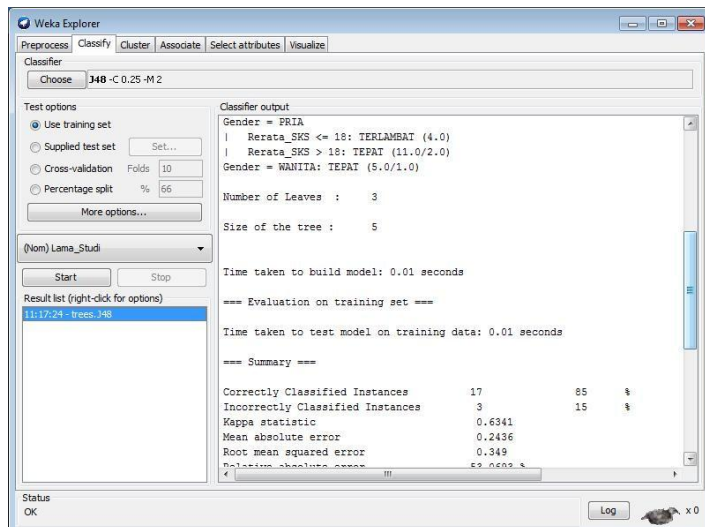
1. Nilai kelas atribut Bermain\_Tenis.

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. Gunakan File jurusan\_SMA.arff

a.) Membuat Pohon Keputusan menggunakan file jurusan\_SMA.arff





b.) Carilah nilai-nilai parameter berikut:

- i. Jumlah simpul daun pada pohon keputusan = 3
- ii. Jumlah simpul keseluruhan pada pohon keputusan = 5
- iii. Waktu yang dibutuhkan untuk proses pelatihan = 0.01 detik
- iv. Tingkat ketepatan klasifikasi = 85 %
- v. Tingkat ketidaktepatan klasifikasi = 15 %

3. Menggunakan file Excel jurusan\_SMA.

**Format your columns.**

☐ Replace errors with missing values ⓘ

	Jurusan_SMA	Gender	Asal_Sekolah	Rerata_SKS	Asisten	Lama_Studi
	polynomial	polynomial	polynomial	integer	polynomial	binominal label
1	IPS	WANITA	SURAKARTA	18	TIDAK	TERLAMBAT
2	IPA	PRIA	SURAKARTA	19	YA	TEPAT
3	LAIN	PRIA	SURAKARTA	19	TIDAK	TERLAMBAT
4	IPA	PRIA	LUAR	17	TIDAK	TERLAMBAT
5	IPA	WANITA	SURAKARTA	17	TIDAK	TEPAT
6	IPA	WANITA	LUAR	18	YA	TEPAT
7	IPA	PRIA	SURAKARTA	18	TIDAK	TERLAMBAT
8	IPA	PRIA	SURAKARTA	19	TIDAK	TEPAT
9	IPS	PRIA	LUAR	18	TIDAK	TERLAMBAT
10	LAIN	WANITA	SURAKARTA	18	TIDAK	TEPAT
11	IPA	WANITA	SURAKARTA	19	TIDAK	TEPAT
12	IPS	PRIA	SURAKARTA	20	TIDAK	TEPAT
13	IPS	PRIA	SURAKARTA	18	TIDAK	TERLAMBAT

no problems.

Previous Next Cancel

a. Pohon Keputusan

RapidMiner Studio Free 9.3.001 @ LABSI-02-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

**Repository**

- Import Data
- Community Samples (conn)
- DB (Legacy)
- Local Repository (LABSI-02)
- Connections (LABSI-02)
- data (LABSI-02)
- processes (LABSI-02)
- CuacaTraining (LABSI-02)
- SMA (LABSI-02 - v1, 11/7/)

**Operators**

performance

- Validation (19)
- Performance (17)
- Predictive (7)
- Performance (Cla)
- Performance (Bin)
- Performance (Ret)

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

**Process**

Process > Cross Validation

100%

Training: Decision Tree

Testing: Apply Model, Performance

**Parameters**

Performance (Performance (Classification))

main criterion: first

- ☒ accuracy
- ☐ classification error
- ☐ kappa
- ☐ weighted mean recall
- ☐ weighted mean precision
- ☐ spearman rho

[Show advanced parameters](#)

**Help**

**Performance (Classification)**

RapidMiner Studio Core

Tags: Accuracy, Errors, Precision, Recall, Kappa, Squared, Relative, Validations, Evaluations, Metrics, Predictive

Synopsis

RapidMiner Studio Free 9.3.001 @ LABSI-02-PC

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**Operators**

performance

- Validation (19)
- Performance (17)
- Predictive (7)
- Performance (Cla)
- Performance (Bin)
- Performance (Ret)

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

**Process**

Process > Retrieve SMA, Cross Validation

100%

Process: Retrieve SMA, 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

<new process>\* - RapidMiner Studio Free 9.3.001 @ LABSI-02-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators...etc

ExampleSet (/Local Repository/SMA) ExampleSet (/Local Repository/CuacaTraining)

Result History

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%	

Repository

Import Data

- Training Resources (connected)
  - Samples
  - Community Samples (connected)
  - DB (Legacy)
- Local Repository (LABSI-02)
  - Connections (LABSI-02)
  - data (LABSI-02)
  - processes (LABSI-02)
    - CuacaTraining (LABSI-02 - v1, 11/7/19 10:44 AM - 5...)
    - SMA (LABSI-02 - v1, 11/7/19 11:24 AM - 869 bytes)

<new process>\* - RapidMiner Studio Free 9.3.001 @ LABSI-02-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators...etc

ExampleSet (/Local Repository/SMA) ExampleSet (/Local Repository/CuacaTraining)

Result History

PerformanceVector (Performance)

Tree (Decision Tree)

Zoom

Tree

Node Labels

Edge Labels

```

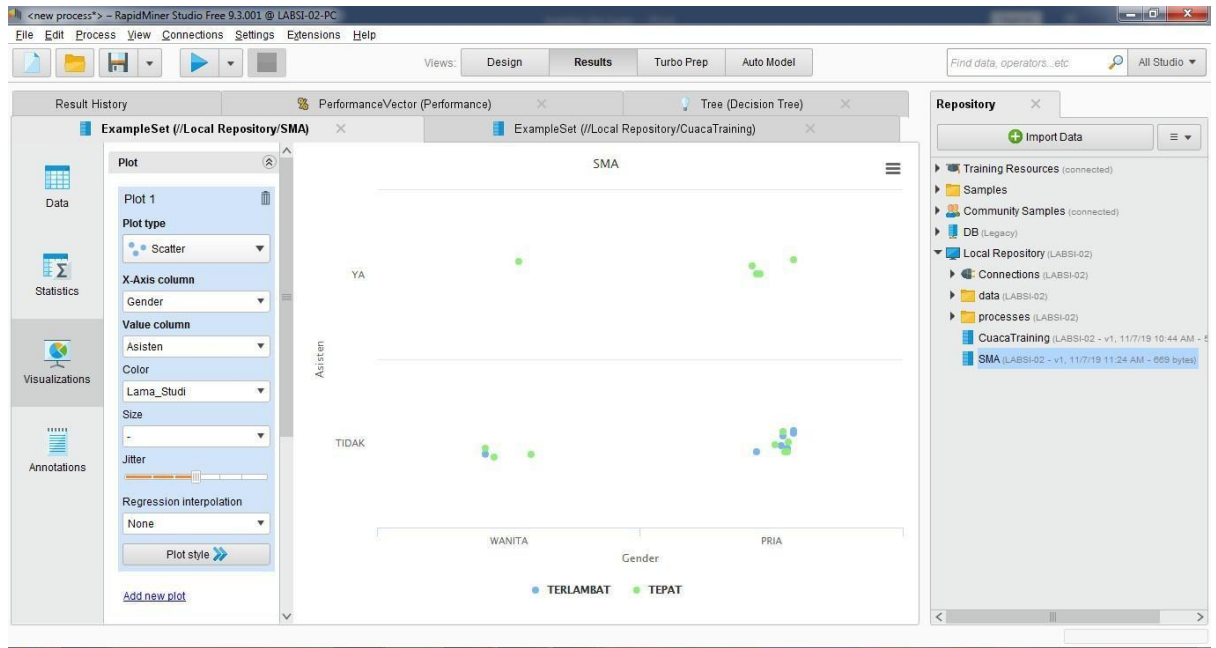
graph TD
    A[Asisten] -- TIDAK --> B[Rerata_SKS]
    A -- YA --> C[TEPAT]
    B -- "> 18.500" --> D[TEPAT]
    B -- "≤ 18.500" --> E[Gender]
    E -- PRIA --> F[TERLAMBAT]
    E -- WANITA --> G[TEPAT]
  
```

Repository

Import Data

- Training Resources (connected)
  - Samples
  - Community Samples (connected)
  - DB (Legacy)
- Local Repository (LABSI-02)
  - Connections (LABSI-02)
  - data (LABSI-02)
  - processes (LABSI-02)
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    - SMA (LABSI-02 - v1, 11/7/19 11:24 AM - 869 bytes)

## b. Perspektif Plot View



### 4. Klasifikasi yang terbentuk yaitu :

- i. Seseorang akan lama\_studi (TERLAMBAT) jika kondisi sebagai berikut:
  - Gender = PRIA,  $Rerata\_SKS \leq 18$  (nilai atribut lain diabaikan)
- ii. Seseorang akan lama\_studi (TERLAMBAT) jika kondisi sebagai berikut:
  - Gender = WANITA (nilai atribut lain diabaikan)
  - Gender = PRIA,  $Rerata\_SKS > 18$  (nilai atribut lain diabaikan)