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## MODUL 9 TUGAS

### 1. Table

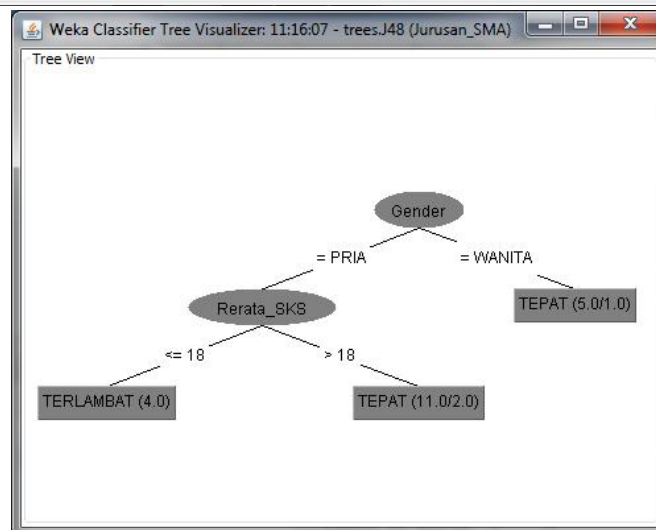
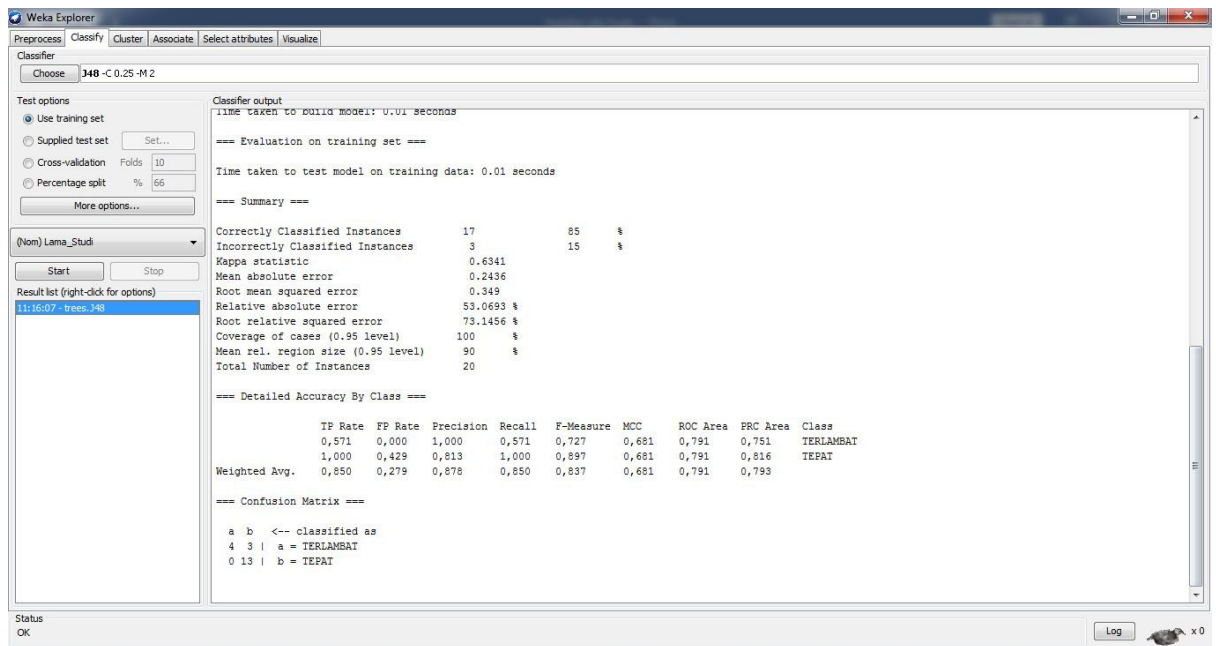
Cuaca	Suhu	Kelembaban_udara	Berangin	Bermain_Tenis
Cerah	75	65	TIDAK	YA
Cerah	80	68	YA	YA
Cerah	83	87	YA	TIDAK
Mendung	70	96	TIDAK	YA
Mendung	68	81	TIDAK	YA
Hujan	65	75	TIDAK	YA
Hujan	64	85	YA	TIDAK

### 2. Weka

#### a. Tree

The screenshot shows the Weka Explorer interface. The 'Classifier' tab is selected, and the 'J48 -C 0.25 -M 2' classifier is chosen. The 'Test options' section shows 'Use training set' selected. The 'Classifier output' section displays the following information:

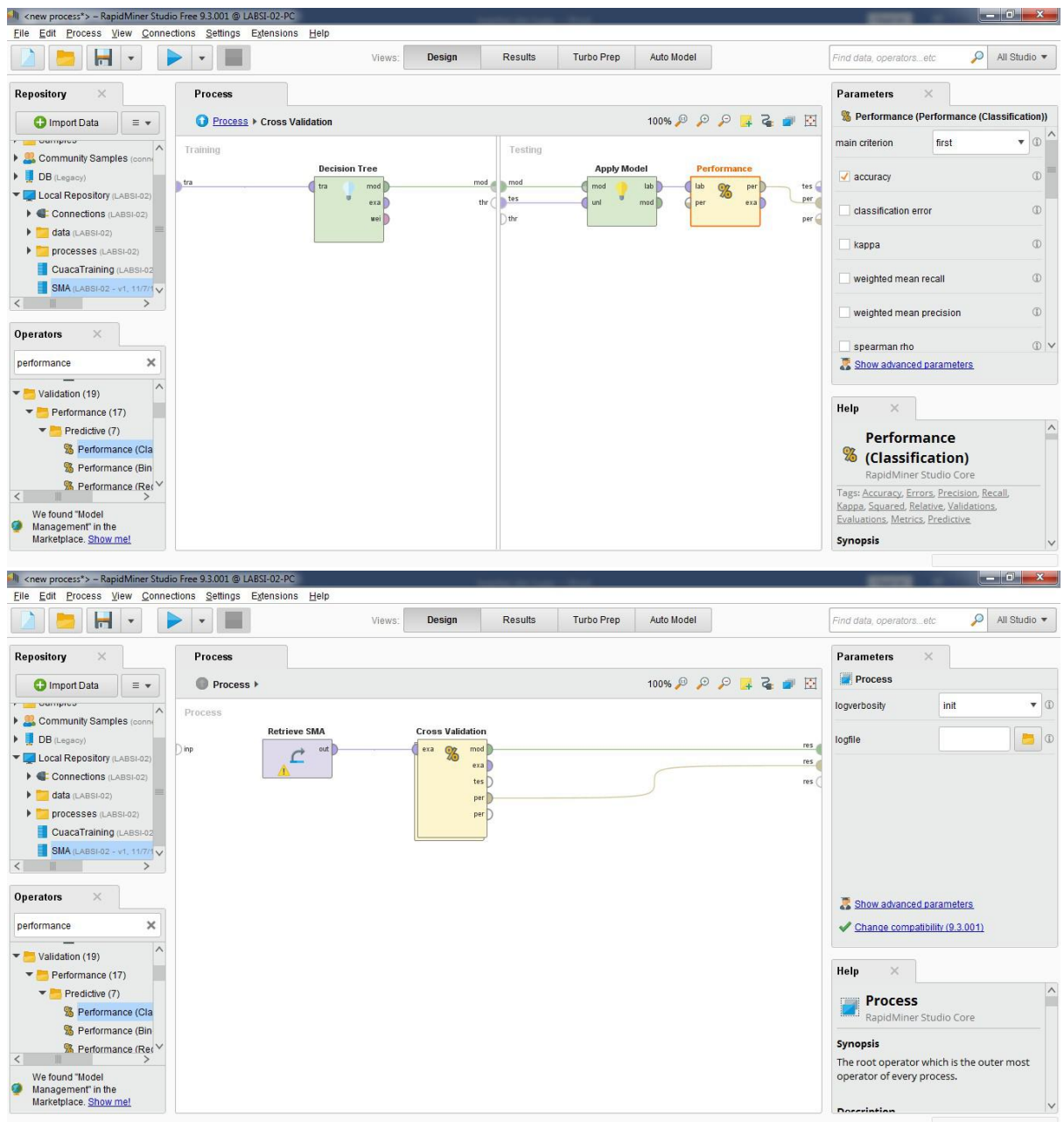
```
=== Run information ===  
  
Scheme:      weka.classifiers.trees.J48 -C 0.25 -M 2  
Relation:     Jurusan_SMA  
Instances:    20  
Attributes:    6  
              Jurusan_SMA  
              Gender  
              Asal_Sekolah  
              Rerata_SKS  
              Asisten  
              Lama_Studi  
  
Test mode:    evaluate on training data  
  
=== Classifier model (full training set) ===  
  
J48 pruned tree  
-----  
  
Gender = PRIA  
| Rerata_SKS <= 18: TERLAMBAT (4.0)  
| Rerata_SKS > 18: TEPAT (11.0/2.0)  
Gender = WANITA: TEPAT (5.0/1.0)  
  
Number of Leaves :    3  
Size of the tree :    5  
  
Time taken to build model: 0.01 seconds  
  
=== Evaluation on training set ===
```



- b. Carilah nilai-nilai parameter berikut:
- Jumlah simpul daun pada pohon keputusan = **3**
  - Jumlah simpul keseluruhan pada pohon keputusan = **5**
  - Waktu yang dibutuhkan untuk proses pelatihan = **0.01** detik
  - Tingkat ketepatan klasifikasi = **85 %**
  - Tingkat ketidaktepatan klasifikasi = **15 %**

### 3. RapidMiner

#### a. Pohon



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

Result History

Criterion: accuracy

Performance

Description

Annotations

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

**PerformanceVector (Performance)**

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 - 669 bytes)

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

Result History

PerformanceVector (Performance)

Tree (Decision Tree)

Views: Design Results Turbo Prep Auto Model

Find data, operators, etc. All Studio

Zoom

Tree

Node Labels

Edge Labels

Graph

Description

Annotations

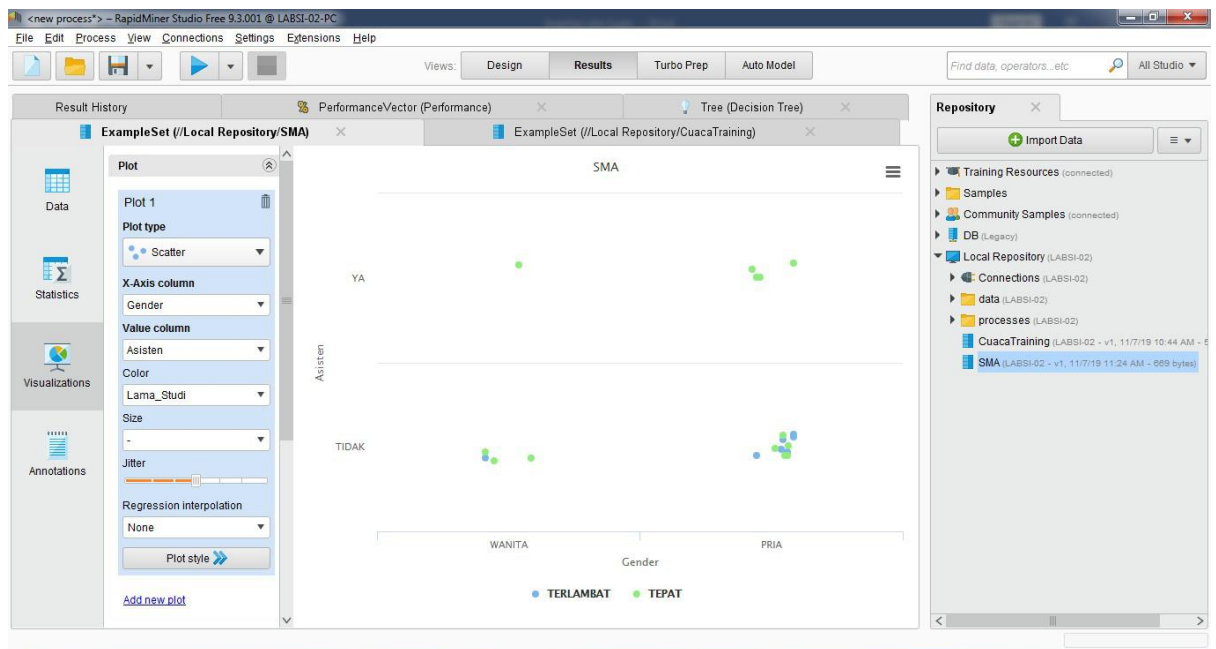
Decision Tree Structure:

```
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

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  - processes (LABSI-02)
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## b. 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)