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L200170183

F

A. KEGIATAN 1

1. Data Cuaca

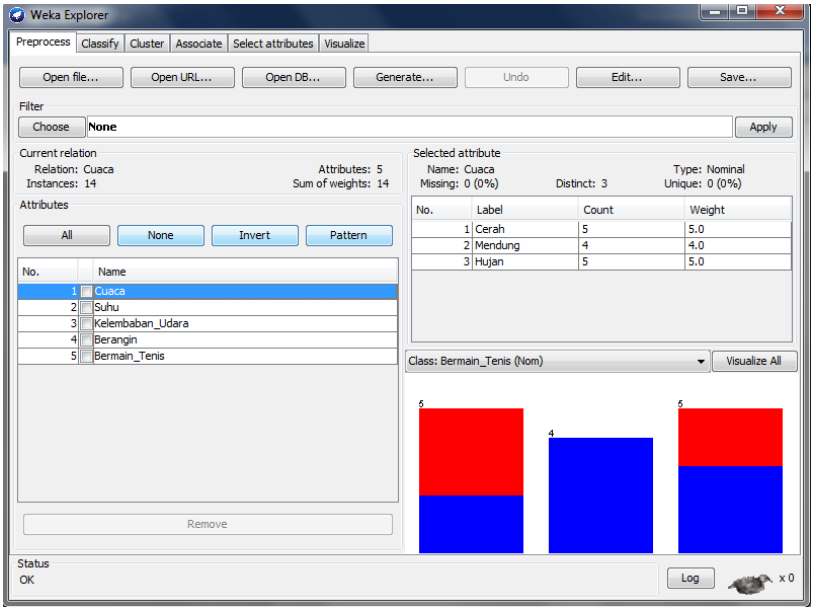
Cuaca.arff

C: > Users > LABSI-24 > Documents > L200170183 > Cuaca.arff

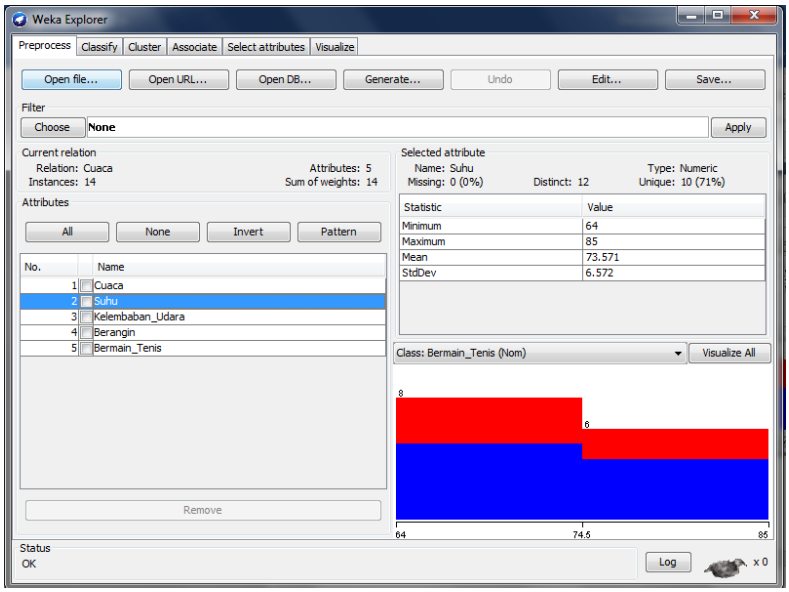
```
@relation Cuaca

@attribute Cuaca {Cerah, Mendung, Hujan}
@attribute Suhu real
@attribute Kelembaban_Udara real
@attribute Berangin {YA, TIDAK}
@attribute Bermain_Tenis {YA, TIDAK}

@data
Cerah, 85, 85, TIDAK, TIDAK
Cerah, 80, 90, YA, TIDAK
Mendung, 83, 86, TIDAK, YA
Hujan, 70, 96, TIDAK, YA
Hujan, 68, 80, TIDAK, YA
Hujan, 65, 70, YA, TIDAK
Mendung, 64,  65, YA, YA
Cerah, 72, 95, TIDAK, TIDAK
Cerah, 69, 70, TIDAK, YA
Hujan, 75, 80, TIDAK, YA
Cerah, 75, 70, YA, YA
Mendung, 72, 90, YA, YA
Mendung, 81, 75, TIDAK, YA
Hujan, 71, 91, YA, TIDAK
```

2. Weka Eksplorer pada data Cuaca

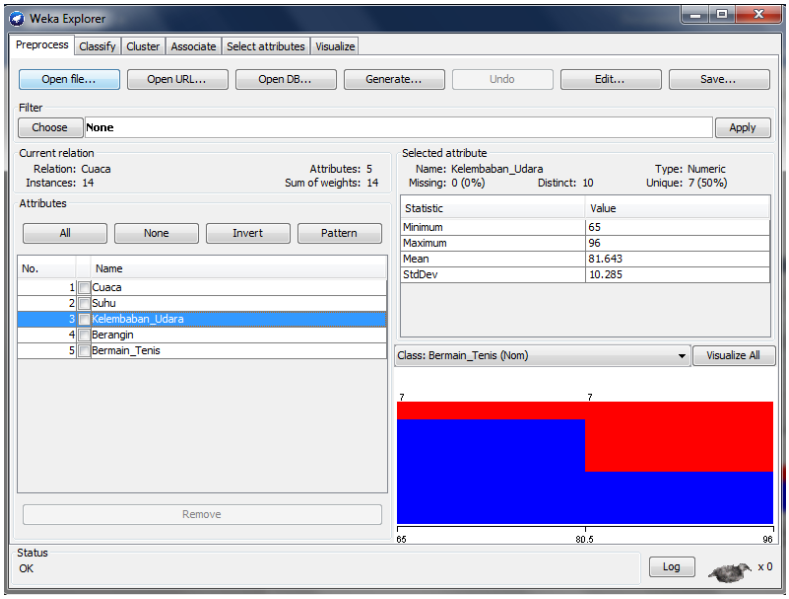
a. Cuaca



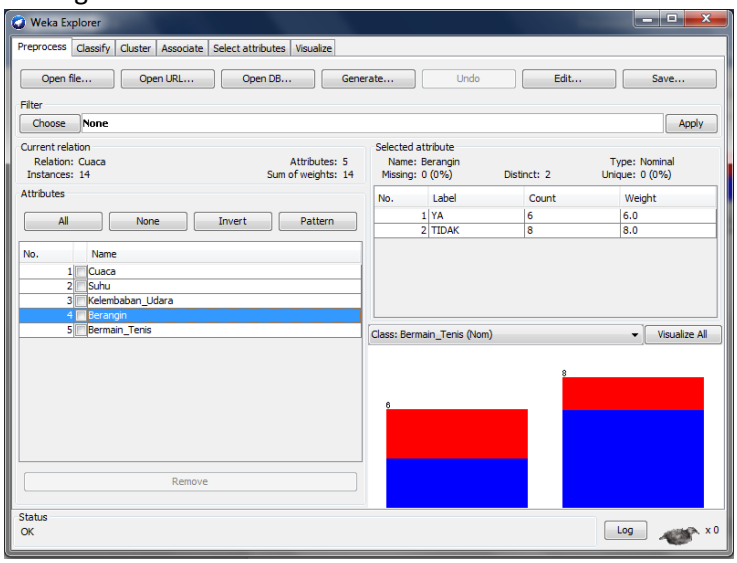
b. Suhu



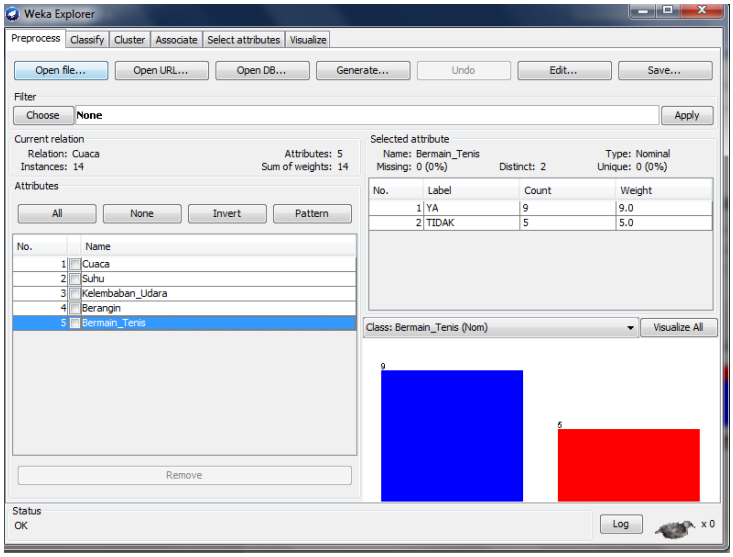
c. Kelembaban_Udara



d. Berangin



e. Bermain_Tenis



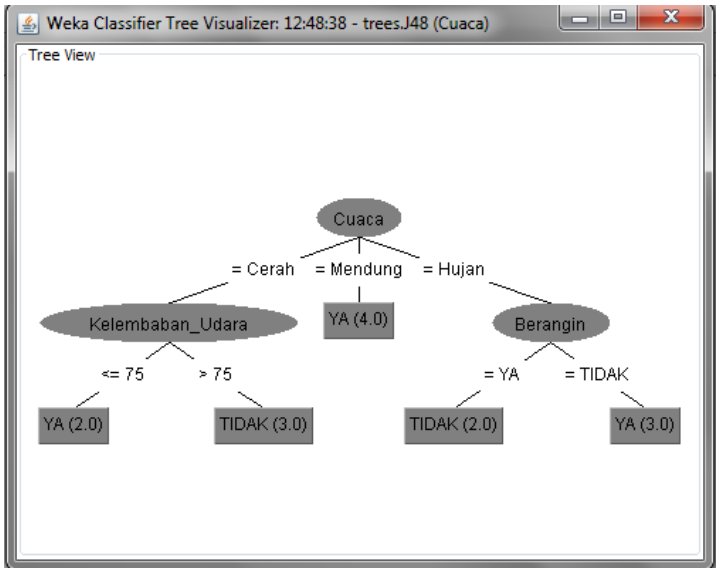
3. Calissifier Output

Classifier output

```
=== Run information ===

Scheme:       weka.classifiers.trees.J48 -C 0.25 -M 2
Relation:     Cuaca
Instances:    14
Attributes:   5
              Cuaca
              Suhu
              Kelembaban_Udara
              Berangin
              Bermain_Tenis
Test mode:    evaluate on training data

=== Classifier model (full training set) ===

J48 pruned tree
------------------

Cuaca = Cerah
|   Kelembaban_Udara <= 75: YA (2.0)
|   Kelembaban_Udara > 75: TIDAK (3.0)
Cuaca = Mendung: YA (4.0)
Cuaca = Hujan
|   Berangin = YA: TIDAK (2.0)
|   Berangin = TIDAK: YA (3.0)

Number of Leaves  :     5

Size of the tree :      8


Time taken to build model: 0.04 seconds
```

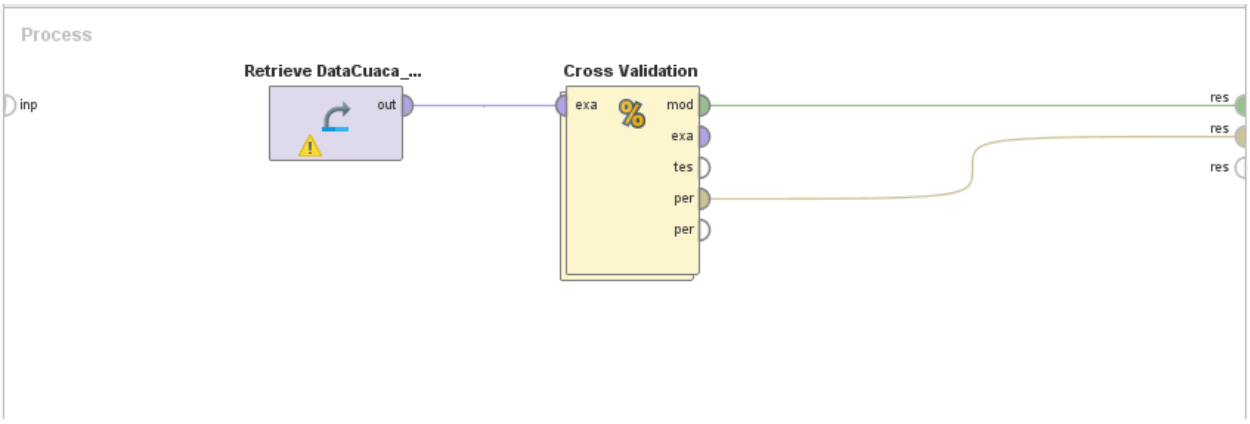
```
=== Evaluation on training set ===

Time taken to test model on training data: 0.01 seconds

=== Summary ===

Correctly Classified Instances          14               100      %
Incorrectly Classified Instances         0                 0      %
Kappa statistic                          1
Mean absolute error                      0
Root mean squared error                  0
Relative absolute error                  0      %
Root relative squared error              0      %
Coverage of cases (0.95 level)         100      %
Mean rel. region size (0.95 level)      50      %
Total Number of Instances               14

=== Detailed Accuracy By Class ===

               TP Rate  FP Rate  Precision  Recall   F-Measure  MCC      ROC Area  PRC Area  Class
               1.000    0.000    1.000      1.000    1.000      1.000    1.000     1.000     YA
               1.000    0.000    1.000      1.000    1.000      1.000    1.000     1.000     TIDAK
Weighted Avg.  1.000    0.000    1.000      1.000    1.000      1.000    1.000     1.000

=== Confusion Matrix ===

 a b   <-- classified as
 9 0 | a = YA
 0 5 | b = TIDAK
```

4. Tree View

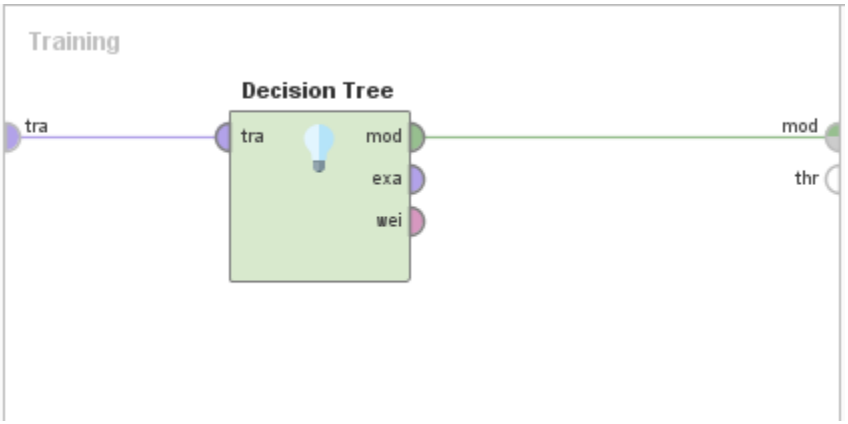


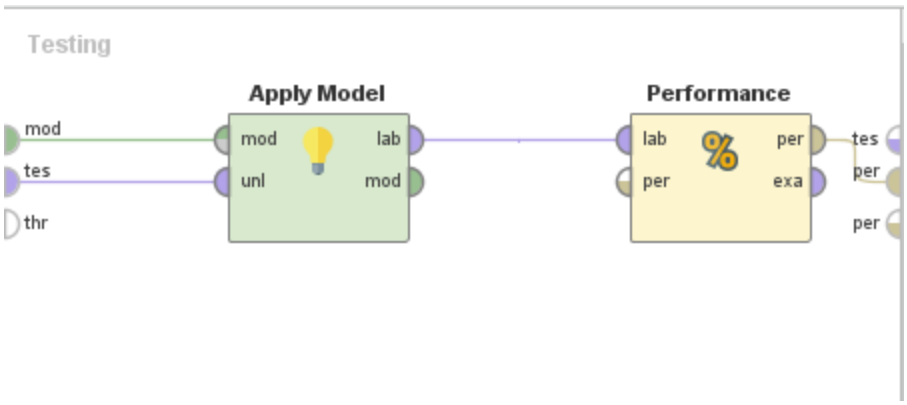
B. KEGIATAN 2

1. Proses pada Rapidminer



2. Cross validation





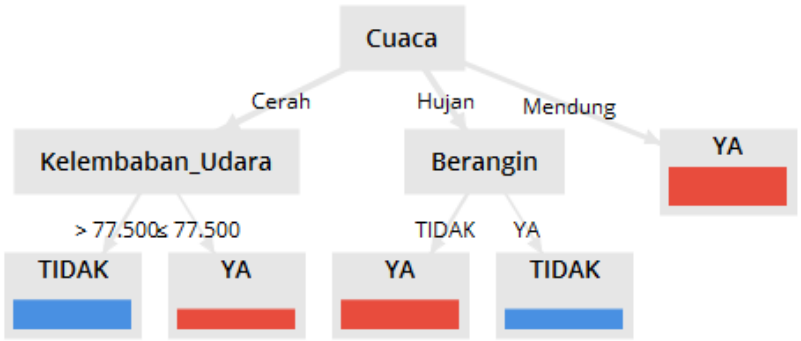
3. Hasil run pada cross validationnya

Table View Plot View

accuracy: 60.00% +/- 45.95% (micro average: 64.29%)

	true TIDAK	true YA	class precision
pred. TIDAK	2	2	50.00%
pred. YA	3	7	70.00%
class recall	40.00%	77.78%	

4. Decission tree



C. TUGAS

1.

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

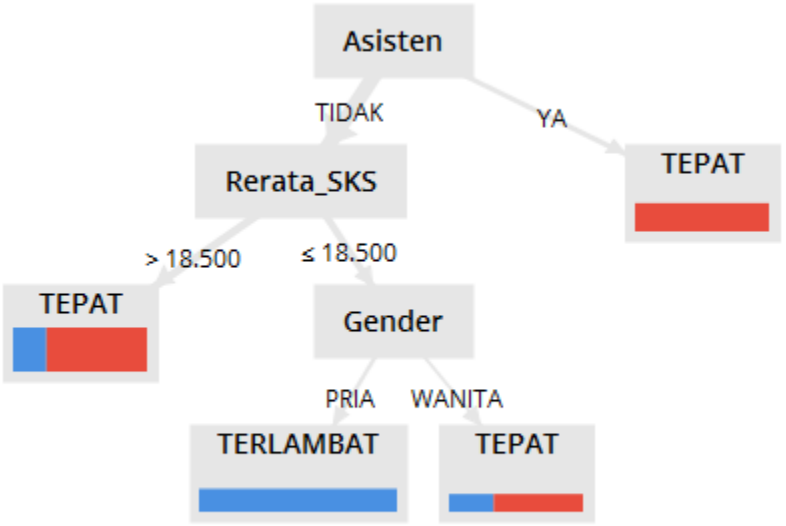
2. A. File Data_TrainingSMA.arff pada Rapidminer

Table View Plot View

Changes to a table showing the confusion matrix.

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

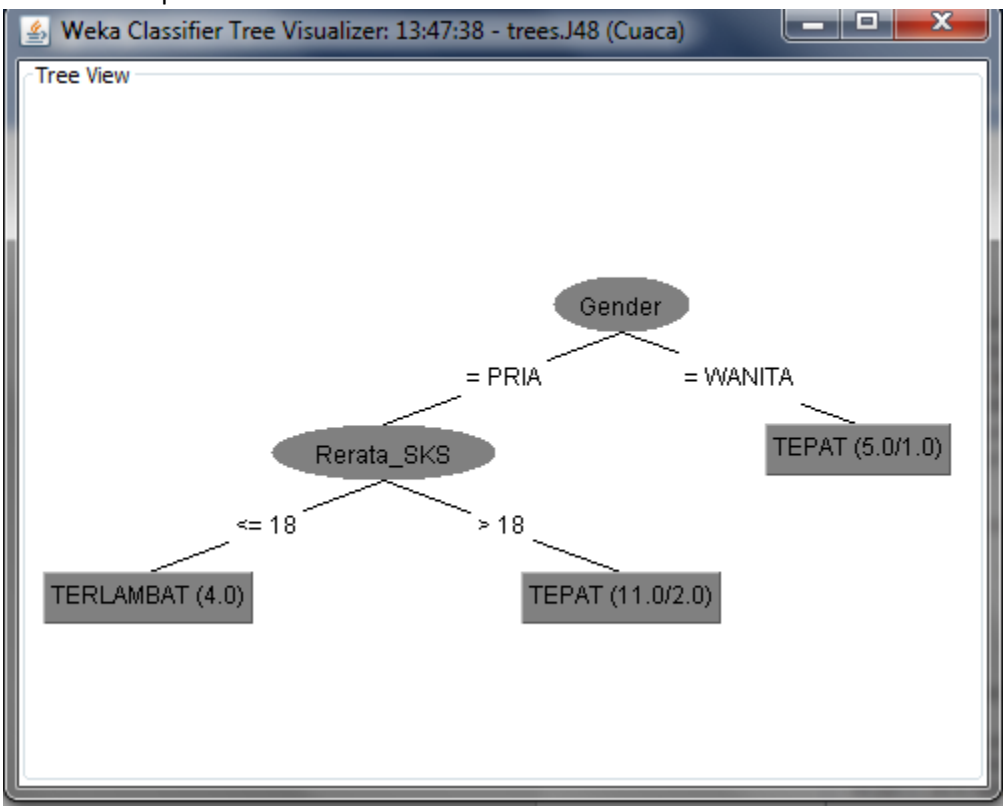
	true TERLAMBAT	true TEPAT	class precision
pred. TERLAMBAT	4	5	44.44%
pred. TEPAT	3	8	72.73%
class recall	57.14%	61.54%	



B. File Data_TrainingSMA.arff pada Weka

```
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 ===

Time taken to test model on training data: 0 seconds

=== Summary ===

Correctly Classified Instances          17               85      %
Incorrectly Classified Instances         3               15      %
Kappa statistic                          0.6341
Mean absolute error                      0.2436
Root mean squared error                  0.349
Relative absolute error                 53.0693 %
Root relative squared error             73.1456 %
Coverage of cases (0.95 level)         100      %
Mean rel. region size (0.95 level)      90      %
Total Number of Instances               20

=== Detailed Accuracy By Class ===

               TP Rate   FP Rate   Precision   Recall  F-Measure  MCC      ROC Area  PRC Area  Class
               0.571    0.000    1.000      0.571    0.727      0.681    0.791     0.751     TERLAMBAT
               1.000    0.429    0.813      1.000    0.897      0.681    0.791     0.816     TEPAT
Weighted Avg.  0.850    0.279    0.878      0.850    0.837      0.681    0.791     0.793

=== Confusion Matrix ===

  a  b   <-- classified as
  4  3 |  a = TERLAMBAT
  0 13 |  b = TEPAT
```

C. Membuka pada Tree Visualizer



4. a. Gender = Wanita = Tepat (5.0/1.0)

   b. Gender = Pria = Rerata_SKS <= 18 = Terlambat (4.0)

   c. Gender = Pria = Rerata_SKS > 18 = Tepat (11.0/2.0)