

Name : Shidqi Aditya Falah

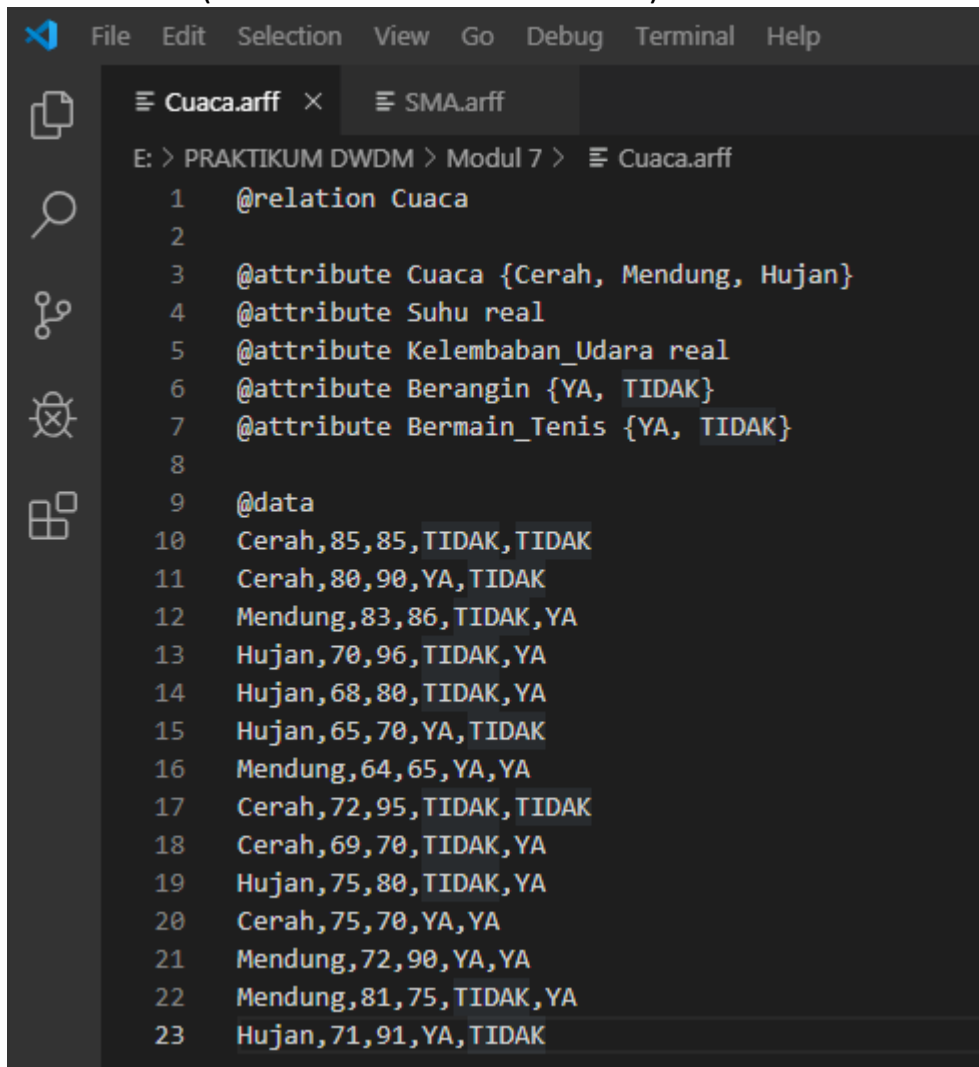
NIM : L202173001

Class : X

Practicum Report Module 7

Example:

1. Create ARFF (Attribut-Relation File Format) Data Format



```
File Edit Selection View Go Debug Terminal Help
Cuaca.arff x SMA.arff
E: > PRAKTIKUM DWDM > Modul 7 > Cuaca.arff
1 @relation Cuaca
2
3 @attribute Cuaca {Cerah, Mendung, Hujan}
4 @attribute Suhu real
5 @attribute Kelembaban_Udara real
6 @attribute Berangin {YA, TIDAK}
7 @attribute Bermain_Tenis {YA, TIDAK}
8
9 @data
10 Cerah,85,85,TIDAK,TIDAK
11 Cerah,80,90,YA,TIDAK
12 Mendung,83,86,TIDAK,YA
13 Hujan,70,96,TIDAK,YA
14 Hujan,68,80,TIDAK,YA
15 Hujan,65,70,YA,TIDAK
16 Mendung,64,65,YA,YA
17 Cerah,72,95,TIDAK,TIDAK
18 Cerah,69,70,TIDAK,YA
19 Hujan,75,80,TIDAK,YA
20 Cerah,75,70,YA,YA
21 Mendung,72,90,YA,YA
22 Mendung,81,75,TIDAK,YA
23 Hujan,71,91,YA,TIDAK
```

2. With Weka use the ARFF File Attribute Cuaca

Weka Explorer

Preprocess | Classify | Cluster | Associate | Select attributes | Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter
Choose **None** Apply

Current relation
Relation: Cuaca
Instances: 14
Attributes: 5
Sum of weights: 14

Attributes
All None Invert Pattern

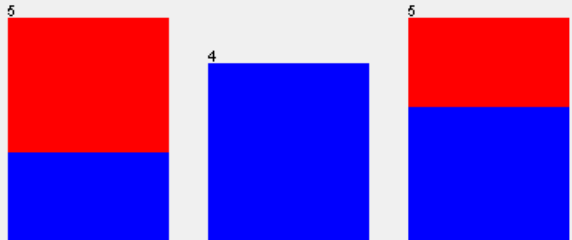
No.	Name
1	<input checked="" type="checkbox"/> Cuaca
2	<input type="checkbox"/> Suhu
3	<input type="checkbox"/> Kelembaban_Udara
4	<input type="checkbox"/> Berangin
5	<input type="checkbox"/> Bermain_Tenis

Remove

Selected attribute
Name: Cuaca
Missing: 0 (0%)
Distinct: 3
Type: Nominal
Unique: 0 (0%)

No.	Label	Count	Weight
1	Cerah	5	5.0
2	Mendung	4	4.0
3	Hujan	5	5.0

Class: Bermain_Tenis (Nom) Visualize All



Status
OK Log x 0

Attribute Suhu

Weka Explorer

Preprocess | Classify | Cluster | Associate | Select attributes | Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter: Choose **None** Apply

Current relation
Relation: Cuaca
Instances: 14
Attributes: 5
Sum of weights: 14

Attributes
All None Invert Pattern

No.	Name
1	<input type="checkbox"/> Cuaca
2	<input checked="" type="checkbox"/> Suhu
3	<input type="checkbox"/> Kelembaban_Udara
4	<input type="checkbox"/> Berangin
5	<input type="checkbox"/> Bermain_Tenis

Remove

Selected attribute
Name: Suhu
Missing: 0 (0%)
Distinct: 12
Type: Numeric
Unique: 10 (71%)

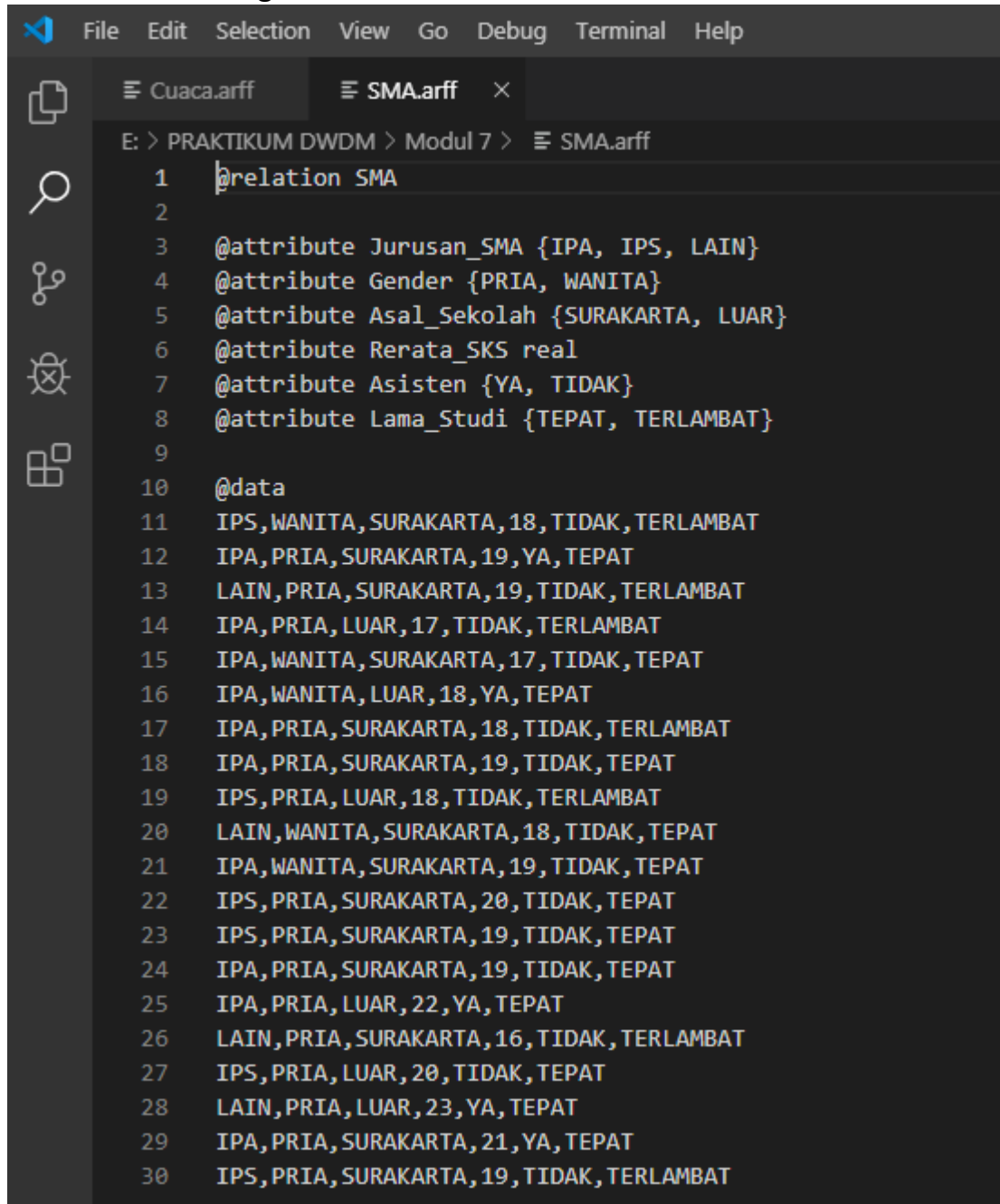
Statistic	Value
Minimum	64
Maximum	85
Mean	73.571
StdDev	6.572

Class: Bermain_Tenis (Nom) Visualize All

Status: OK Log x 0

Assignment

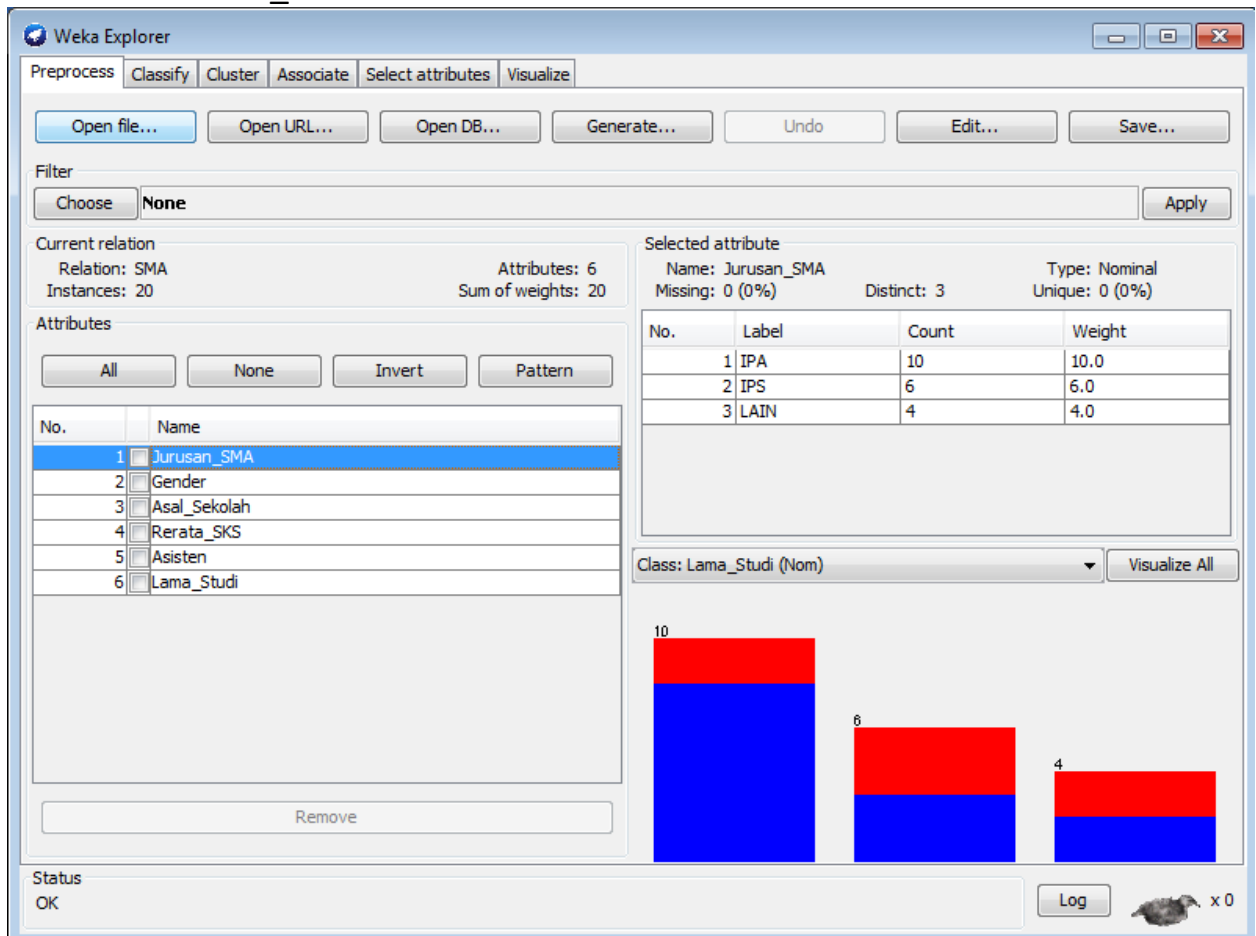
1. File ARFF according to Module 6



```
1 relation SMA
2
3 @attribute Jurusan_SMA {IPA, IPS, LAIN}
4 @attribute Gender {PRIA, WANITA}
5 @attribute Asal_Sekolah {SURAKARTA, LUAR}
6 @attribute Rerata_SKS real
7 @attribute Asisten {YA, TIDAK}
8 @attribute Lama_Studi {TEPAT, TERLAMBAT}
9
10 @data
11 IPS,WANITA,SURAKARTA,18,TIDAK,TERLAMBAT
12 IPA,PRIA,SURAKARTA,19,YA,TEPAT
13 LAIN,PRIA,SURAKARTA,19,TIDAK,TERLAMBAT
14 IPA,PRIA,LUAR,17,TIDAK,TERLAMBAT
15 IPA,WANITA,SURAKARTA,17,TIDAK,TEPAT
16 IPA,WANITA,LUAR,18,YA,TEPAT
17 IPA,PRIA,SURAKARTA,18,TIDAK,TERLAMBAT
18 IPA,PRIA,SURAKARTA,19,TIDAK,TEPAT
19 IPS,PRIA,LUAR,18,TIDAK,TERLAMBAT
20 LAIN,WANITA,SURAKARTA,18,TIDAK,TEPAT
21 IPA,WANITA,SURAKARTA,19,TIDAK,TEPAT
22 IPS,PRIA,SURAKARTA,20,TIDAK,TEPAT
23 IPS,PRIA,SURAKARTA,19,TIDAK,TEPAT
24 IPA,PRIA,SURAKARTA,19,TIDAK,TEPAT
25 IPA,PRIA,LUAR,22,YA,TEPAT
26 LAIN,PRIA,SURAKARTA,16,TIDAK,TERLAMBAT
27 IPS,PRIA,LUAR,20,TIDAK,TEPAT
28 LAIN,PRIA,LUAR,23,YA,TEPAT
29 IPA,PRIA,SURAKARTA,21,YA,TEPAT
30 IPS,PRIA,SURAKARTA,19,TIDAK,TERLAMBAT
```

2. Grafik Picture for every single data in Weka

Attribute Jurusan_SMA



Attribute Gender

Weka Explorer

Preprocess | **Classify** | Cluster | Associate | Select attributes | Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter: Choose **None** Apply

Current relation
Relation: SMA
Instances: 20
Attributes: 6
Sum of weights: 20

Attributes: All None Invert Pattern

No.	Name
1	<input type="checkbox"/> Jurusan_SMA
2	<input checked="" type="checkbox"/> Gender
3	<input type="checkbox"/> Asal_Sekolah
4	<input type="checkbox"/> Rerata_SKS
5	<input type="checkbox"/> Asisten
6	<input type="checkbox"/> Lama_Studi

Remove

Selected attribute
Name: Gender
Missing: 0 (0%)
Distinct: 2
Type: Nominal
Unique: 0 (0%)

No.	Label	Count	Weight
1	PRIA	15	15.0
2	WANITA	5	5.0

Class: Lama_Studi (Nom) Visualize All

Status: OK Log x 0

Attribute Asal_Sekolah

Weka Explorer

Preprocess | **Classify** | Cluster | Associate | Select attributes | Visualize

Open file... | Open URL... | Open DB... | Generate... | Undo | Edit... | Save...

Filter: Choose **None** Apply

Current relation
Relation: SMA
Instances: 20
Attributes: 6
Sum of weights: 20

Attributes
All | None | Invert | Pattern

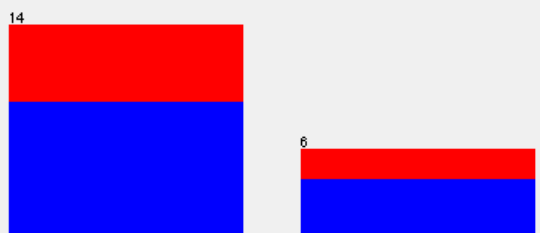
No.	Name
1	<input type="checkbox"/> Jurusan_SMA
2	<input type="checkbox"/> Gender
3	<input checked="" type="checkbox"/> Asal_Sekolah
4	<input type="checkbox"/> Rerata_SKS
5	<input type="checkbox"/> Asisten
6	<input type="checkbox"/> Lama_Studi

Remove

Selected attribute
Name: Asal_Sekolah
Missing: 0 (0%)
Distinct: 2
Type: Nominal
Unique: 0 (0%)

No.	Label	Count	Weight
1	SURAKARTA	14	14.0
2	LUAR	6	6.0

Class: Lama_Studi (Nom) Visualize All



Status: OK Log x 0

Attribute Rerata_SKS

Weka Explorer

Preprocess | Classify | Cluster | Associate | Select attributes | Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter: Choose **None** Apply

Current relation
Relation: SMA
Instances: 20
Attributes: 6
Sum of weights: 20

Attributes
All None Invert Pattern

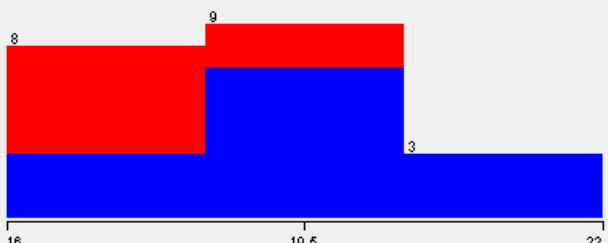
No.	Name
1	Jurusan_SMA
2	Gender
3	Asal_Sekolah
4	Rerata_SKS
5	Asisten
6	Lama_Studi

Remove

Selected attribute
Name: Rerata_SKS
Missing: 0 (0%)
Distinct: 8
Type: Numeric
Unique: 4 (20%)

Statistic	Value
Minimum	16
Maximum	23
Mean	18.95
StdDev	1.669

Class: Lama_Studi (Nom) Visualize All



The histogram shows the distribution of the Rerata_SKS attribute. The x-axis represents the value of Rerata_SKS, ranging from 16 to 23. The y-axis represents the frequency of instances. There are two bars: a red bar for the range [16, 19.5) with a frequency of 8, and a blue bar for the range [19.5, 23] with a frequency of 9. The total frequency is 17, which is less than the total number of instances (20), indicating that some instances have values outside the shown range or are filtered out.

Status: OK Log x 0

Attribute Asisten

Weka Explorer

Preprocess | **Classify** | Cluster | Associate | Select attributes | Visualize

Open file... Open URL... Open DB... Generate... Undo Edit... Save...

Filter: Choose **None** Apply

Current relation
Relation: SMA
Instances: 20
Attributes: 6
Sum of weights: 20

Selected attribute
Name: Asisten
Missing: 0 (0%)
Distinct: 2
Type: Nominal
Unique: 0 (0%)

Attributes
All None Invert Pattern

No.	Name
1	Jurusan_SMA
2	Gender
3	Asal_Sekolah
4	Rerata_SKS
5	Asisten
6	Lama_Studi

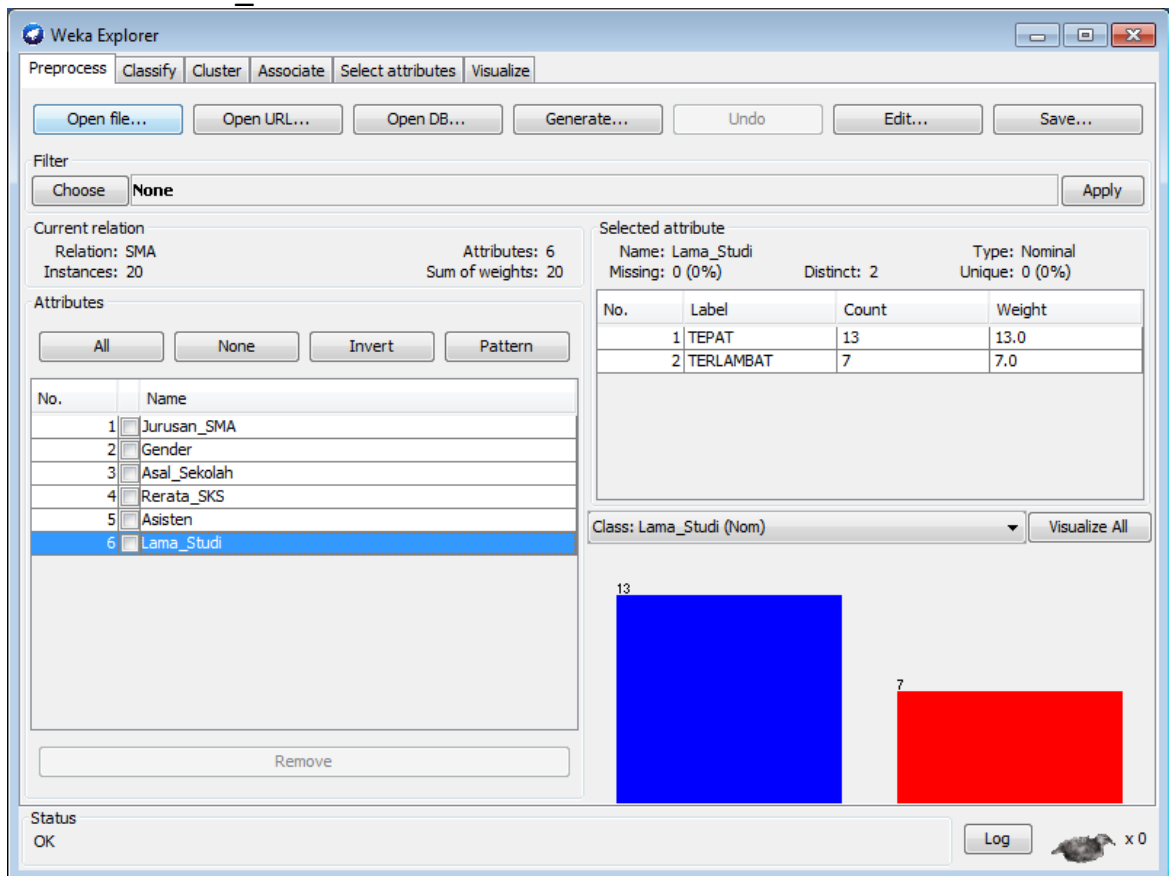
Remove

No.	Label	Count	Weight
1	YA	5	5.0
2	TIDAK	15	15.0

Class: Lama_Studi (Nom) Visualize All

Status: OK Log x 0

Attribute Lama_Studi



3. Attribute that have a binomial type: 4
Attribute that have a polynomial type : 1
4. Attribute that have a real type : 1
5. On attribute Rerata_SKS:
Maximum Value : 23
Minimum Value : 16
Mean Value : 18.95
Standard Deviation Value : 1.669