

# DWDM

## WEKA – PROGRAM 22

Weka Explorer

Preprocess Classify **Cluster** Associate Select attributes Visualize

Clusterer  
Choose **SimpleKMeans** -init 0 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t1 -1.25 -t2 -1.0 -N 2 -A "weka.core.EuclideanDistance -R first-last" -I 500 -num-slots 1

Cluster mode  
☒ Use training set  
☐ Supplied test set Set...  
☐ Percentage split % 66  
☐ Classes to clusters evaluation (Nom) class v  
☒ Store clusters for visualization

Ignore attributes

Start Stop

Result list (right-click for options)  
17:04:08 - EM  
17:10:04 - SimpleKMeans

Clusterer output

```
=== Run information ===

Scheme:      weka.clusterers.SimpleKMeans -init 0 -max-candidates 100 -periodic-pruning
Relation:    iris
Instances:   150
Attributes:  5
              sepalwidth
              sepalwidth
              petalwidth
              petalwidth
              class
Test mode:   evaluate on training data

=== Clustering model (full training set) ===

kMeans
=====

Number of iterations: 7
Within cluster sum of squared errors: 62.1436882815797

Initial starting points (random):

Cluster 0: 6.1,2.9,4.7,1.4,Iris-versicolor
Cluster 1: 6.2,2.9,4.3,1.3,Iris-versicolor

Missing values globally replaced with mean/mode

Final cluster centroids:

Attribute      Full Data      Cluster#      0      1
```

Status  
OK

Log x 0

**Weka Explorer**

Preprocess   **Cluster**   Associate   Select attributes   Visualize

Clusterer  
Choose **SimpleKMeans** -init 0 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t1 -1.25 -t2 -1.0 -N 2 -A "weka.core.EuclideanDistance -R first-last" -I 500 -num-slots 1

Cluster mode  
☒ Use training set  
☐ Supplied test set   
☐ Percentage split %   
☐ Classes to clusters evaluation (Nom) class   
☒ Store clusters for visualization

Ignore attributes   
 Start  Stop

Result list (right-click for options)  
 17:04:08 - EM  
**17:10:04 - SimpleKMeans**

Clusterer output

Within cluster sum of squared errors: 62.1436882815797

Initial starting points (random):  
 Cluster 0: 6.1,2.9,4.7,1.4,Iris-versicolor  
 Cluster 1: 6.2,2.9,4.3,1.3,Iris-versicolor

Missing values globally replaced with mean/mode

Final cluster centroids:


Attribute	Full Data (150.0)	Cluster# 0 (100.0)	1 (50.0)
sepalength	5.8433	6.262	5.006
sepalwidth	3.054	2.872	3.418
petallength	3.7587	4.906	1.464
petalwidth	1.1987	1.676	0.244
class	Iris-setosa Iris-versicolor Iris-setosa		

Time taken to build model (full training data) : 0 seconds

=== Model and evaluation on training set ===

Clustered Instances

0	100 ( 67%)
1	50 ( 33%)

Status  
OK   x 0

