

Practical No 3

16/02/23

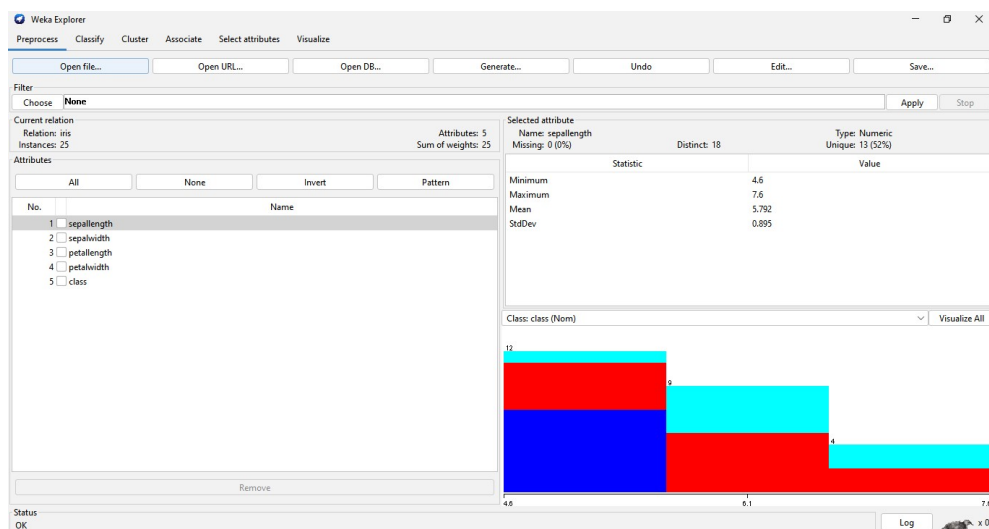
Aim: Pre-process the given data set and hence apply hierarchical algorithms and density based clustering techniques. Interpret the result.

Steps:

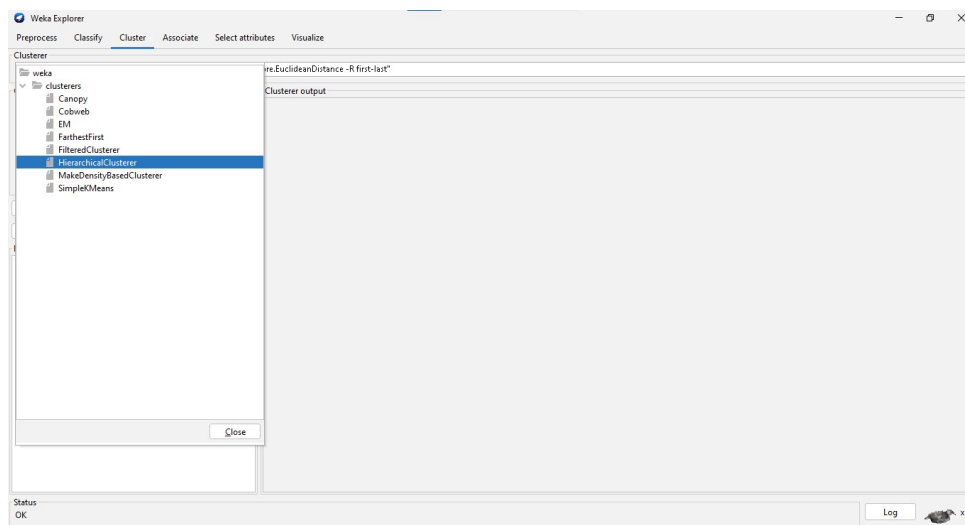
1. Create excel file **iris.csv**

A	B	C	D	E
sepal.length	sepal.width	petal.length	petal.width	class
5.1	3.5	1.4	0.2	Iris-setosa
4.9	3	1.4	0.2	Iris-setosa
4.7	3.2	1.3	0.2	Iris-setosa
4.6	3.1	1.5	0.2	Iris-setosa
5	3.6	1.4	0.2	Iris-setosa
5.4	3.9	1.7	0.4	Iris-setosa
4.6	3.4	1.4	0.3	Iris-setosa
7	3.2	4.7	1.4	Iris-versicolor
6.4	3.2	4.5	1.5	Iris-versicolor
6.9	3.1	4.9	1.5	Iris-versicolor
5.5	2.3	4	1.3	Iris-versicolor
6.5	2.8	4.6	1.5	Iris-versicolor
5.7	2.8	4.5	1.3	Iris-versicolor
6.3	3.3	4.7	1.6	Iris-versicolor
4.9	2.4	3.3	1	Iris-versicolor
6.6	2.9	4.6	1.3	Iris-versicolor
5.2	2.7	3.9	1.4	Iris-versicolor
5	2	3.5	1	Iris-versicolor
6.3	3.3	6	2.5	Iris-virginica
5.8	2.7	5.1	1.9	Iris-virginica
7.1	3	5.9	2.1	Iris-virginica
6.3	2.9	5.6	1.8	Iris-virginica
6.5	3	5.8	2.2	Iris-virginica
7.6	3	6.6	2.1	Iris-virginica
4.9	2.5	4.5	1.7	Iris-virginica

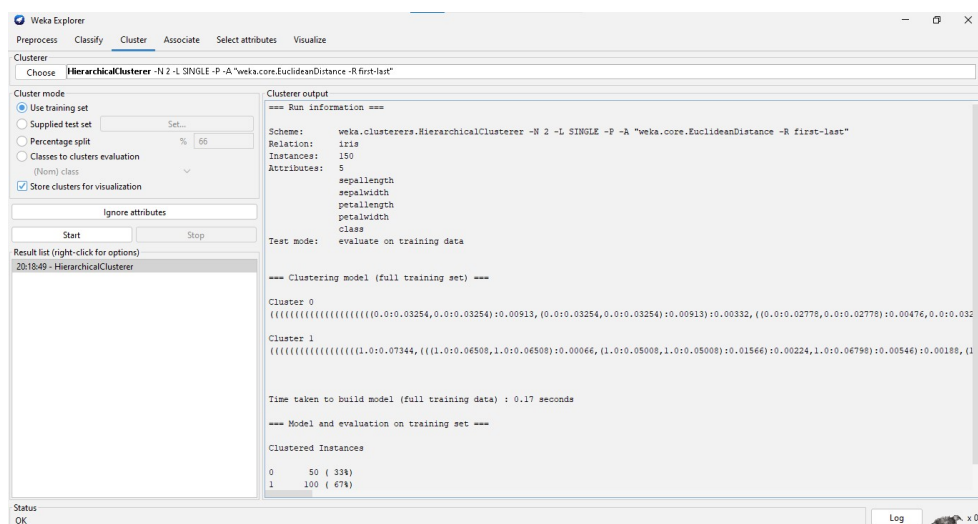
2. Open Weka >click **Explorer** > click open file > select file **iris.csv** file.



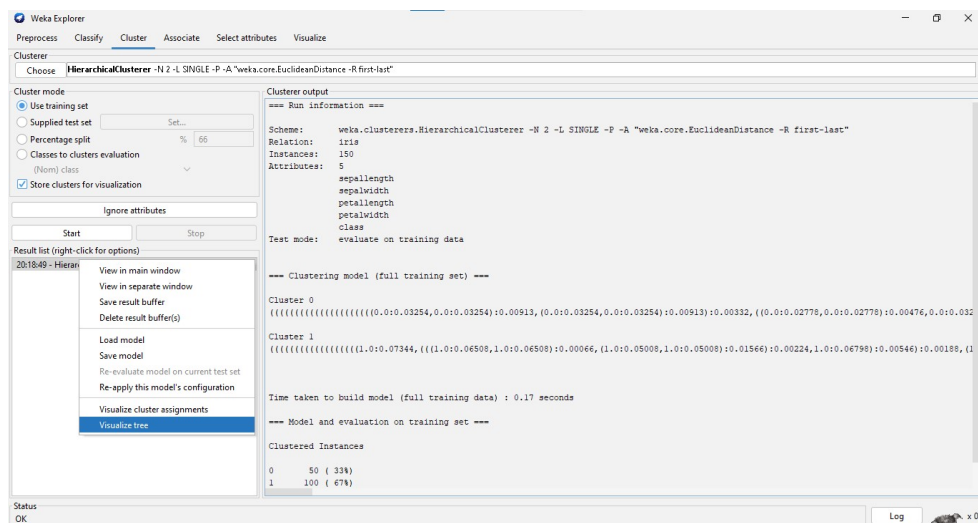
3. Click on **Cluster** tab, click on **choose** > select **HierarchicalClusterer**.

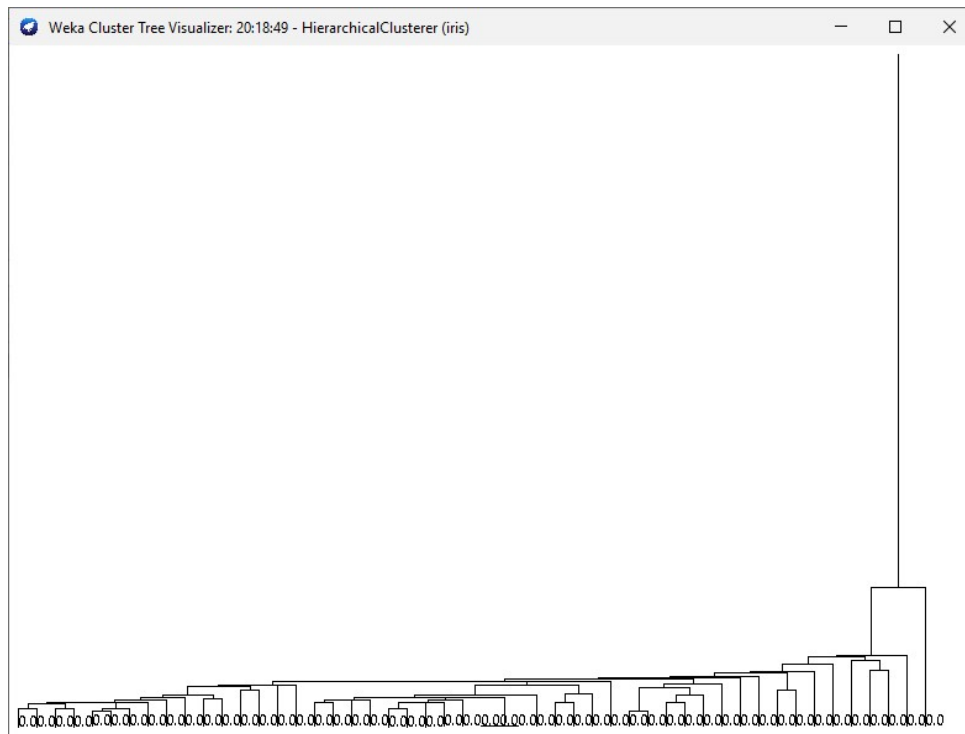


4. Click on **Start**. You can see the Hierarchical clustering on the **Clustered** output.

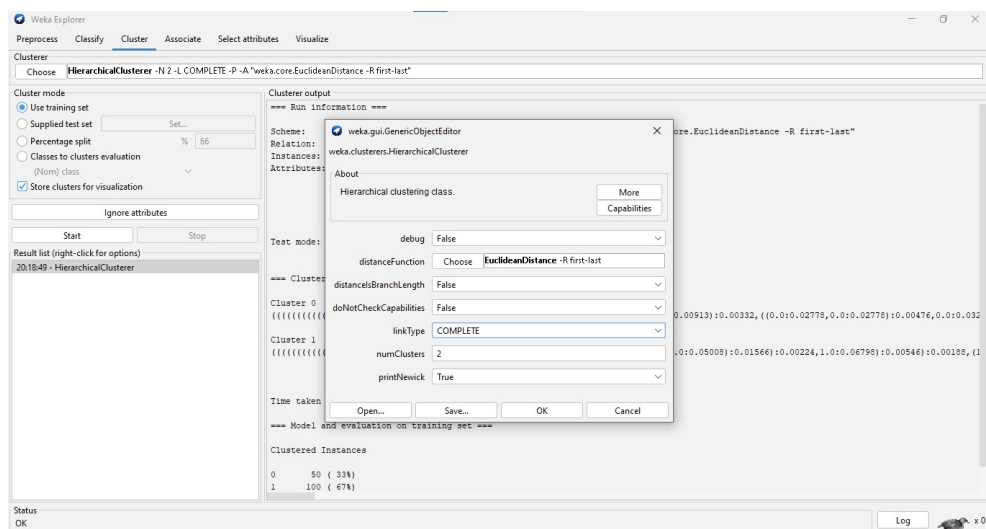


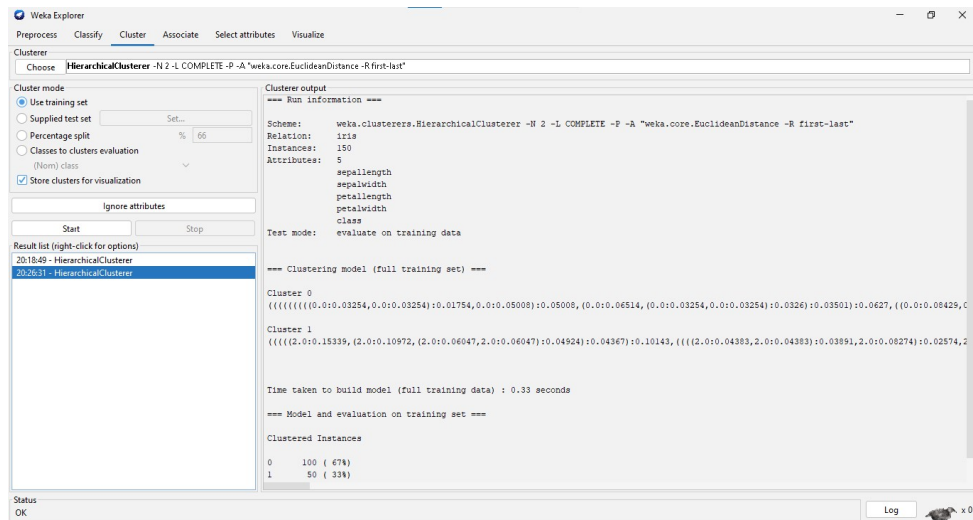
5. In **Result list** ,right click on result > select **visualize tree**.





6. Now click on cluster name ,a window will appear select **linktype** as complete and click on **ok**. Again click on start.





7. Right click on **result list** > select **visualize tree**

