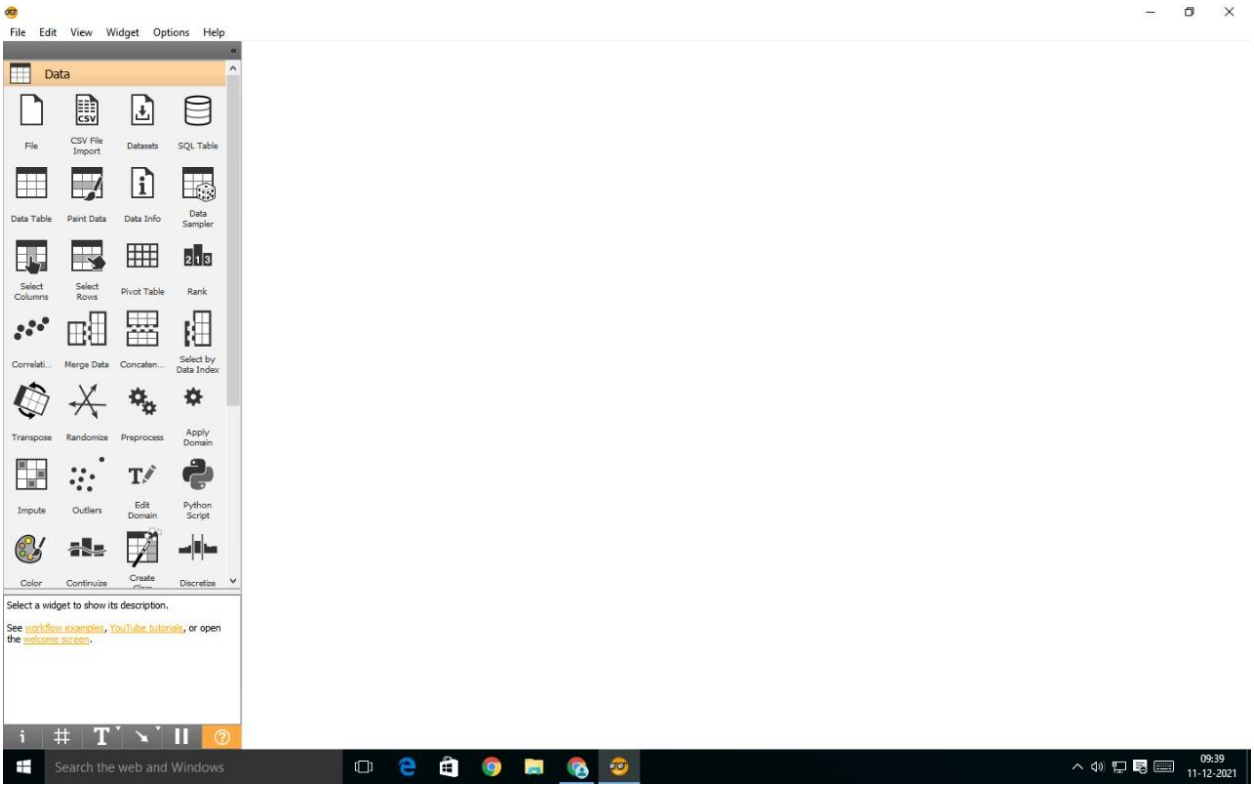
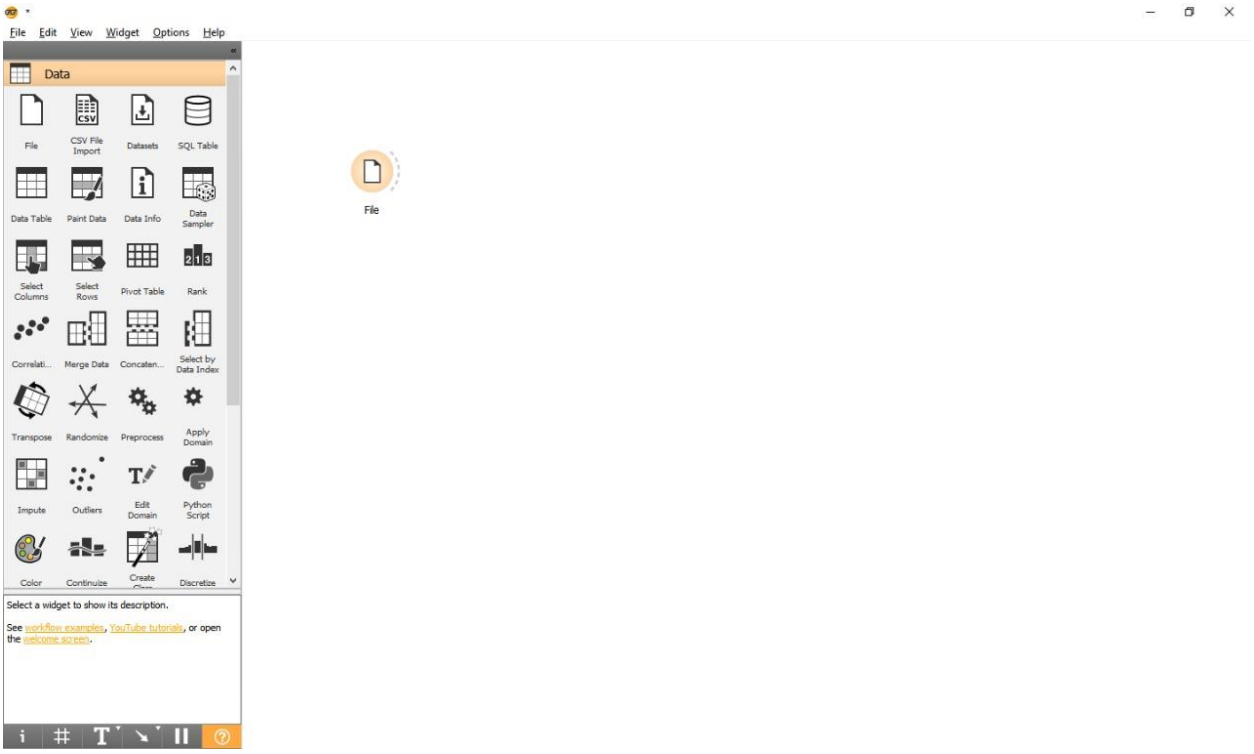
Clustering

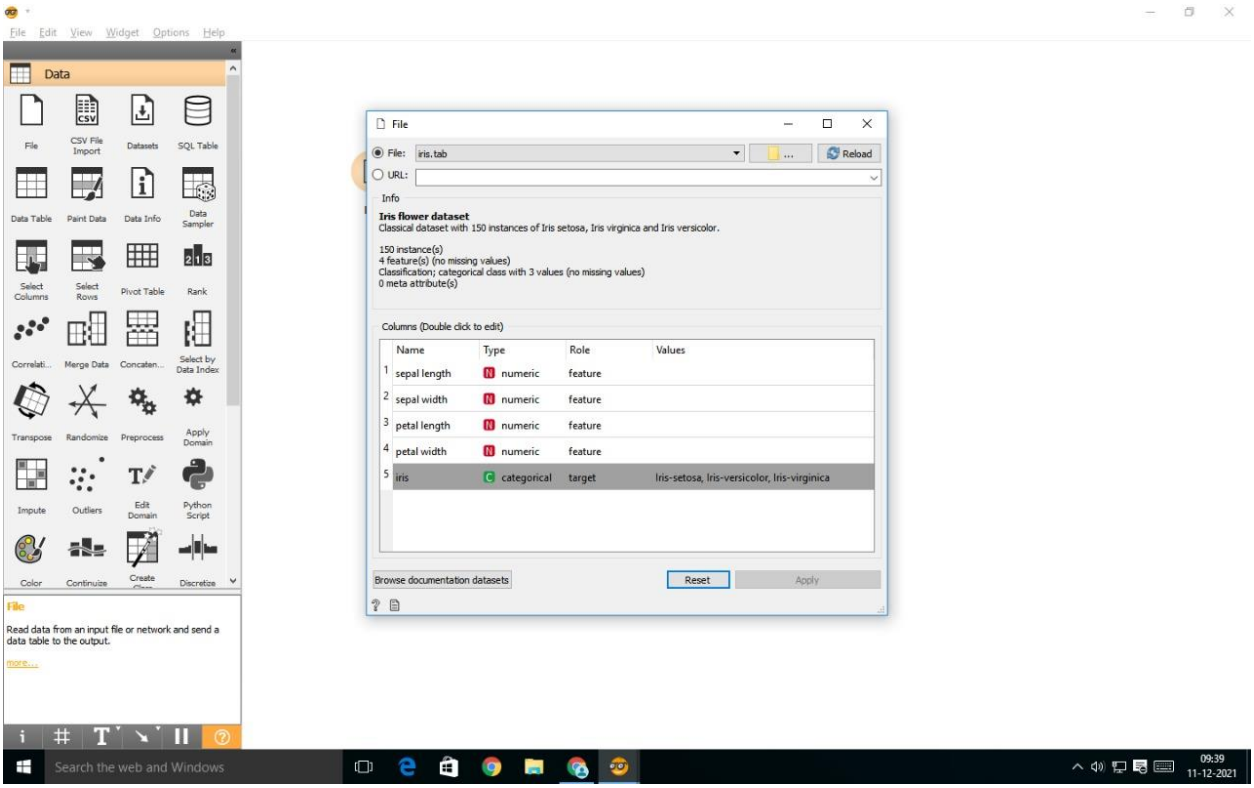
Open Orange Application. Select File from Data.



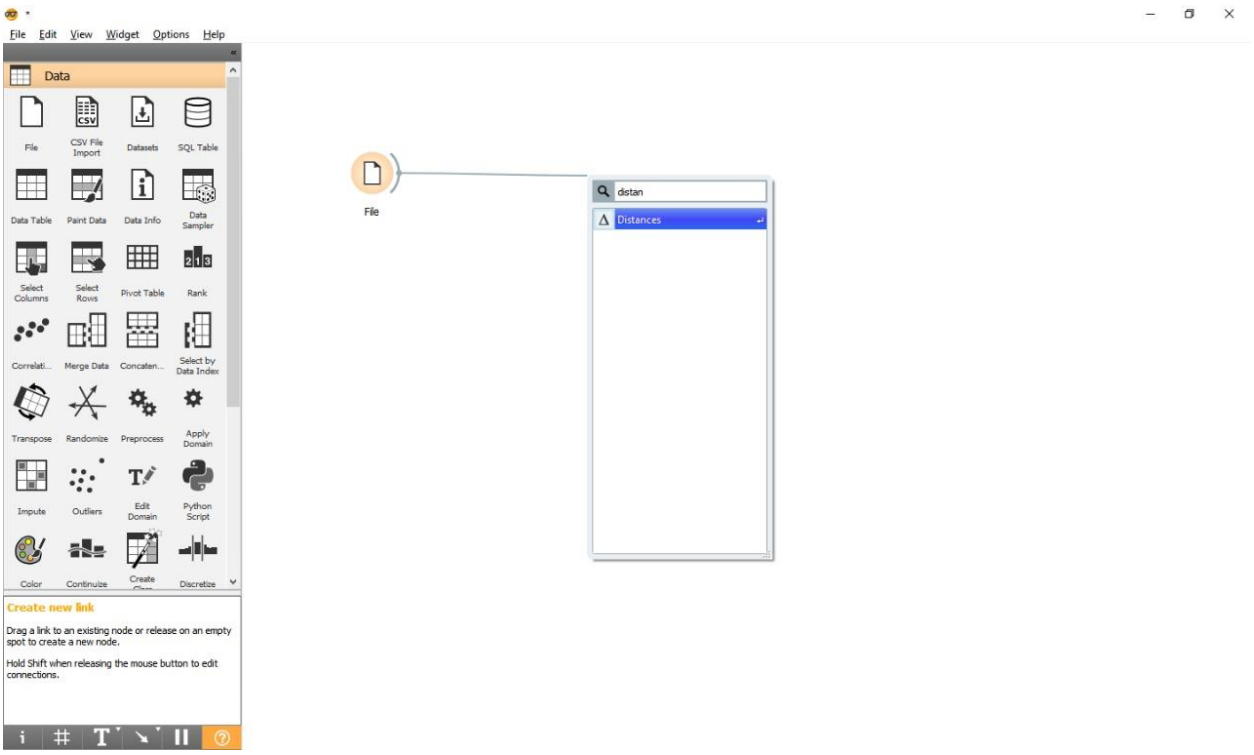
Double Click on the file appeared in the screen.



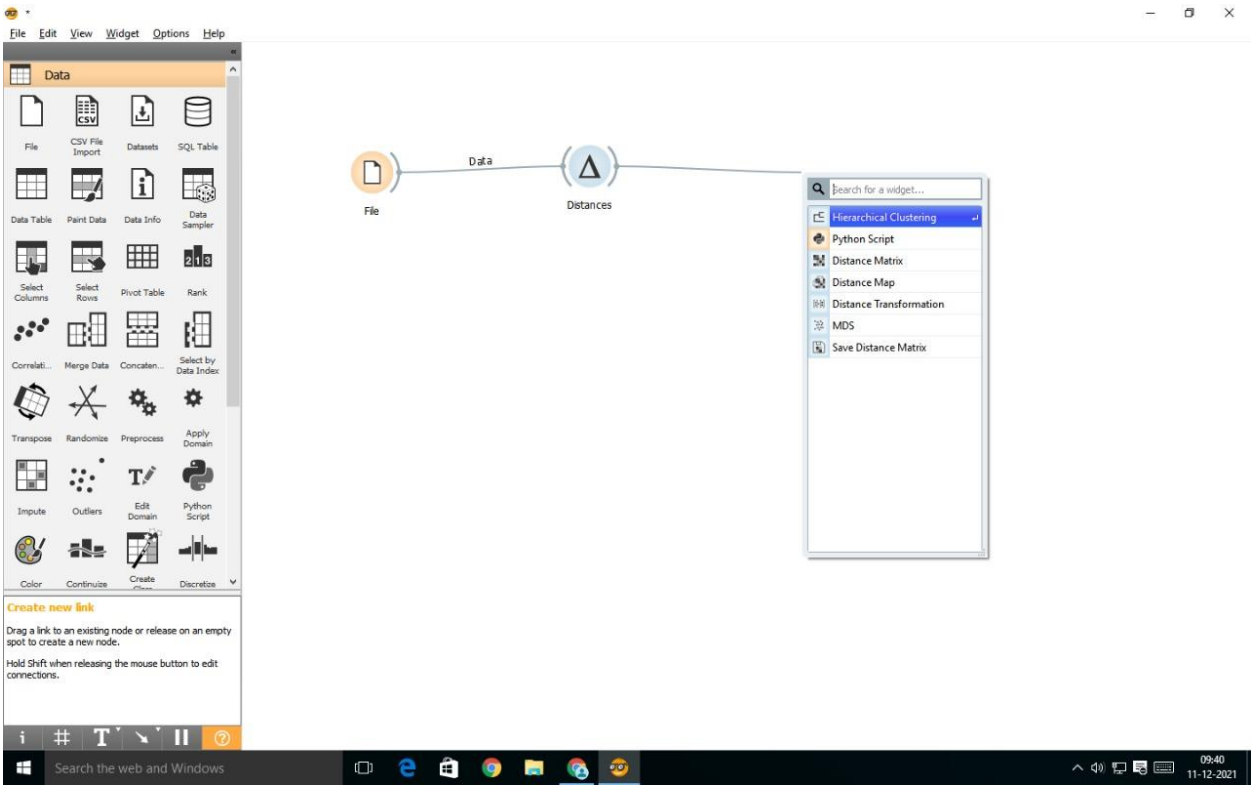
A dialogue box will appear select iris.tab and close the dialogue box.



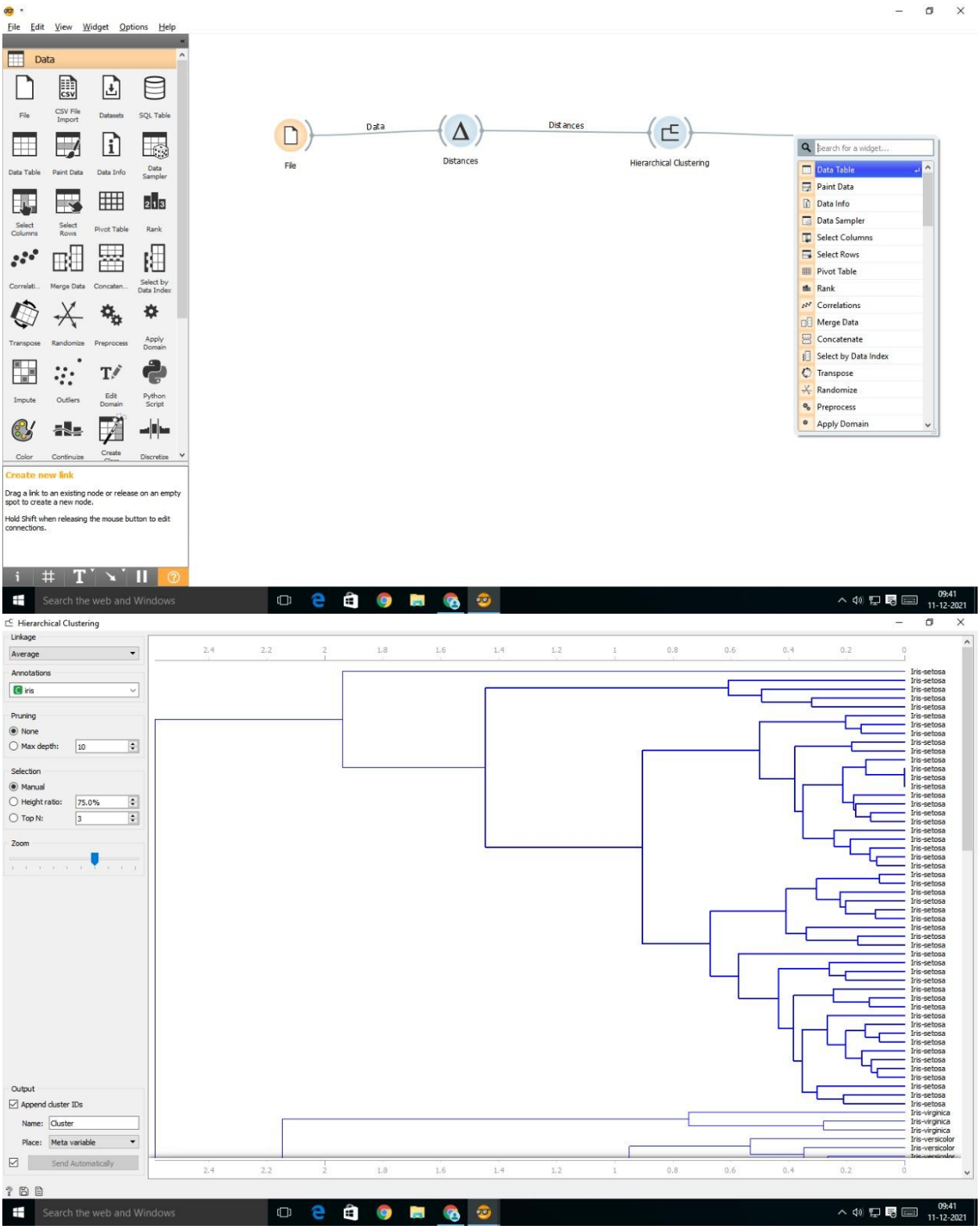
Click on the dashed line on right side of the file and drag the mouse and select Distance from the list.



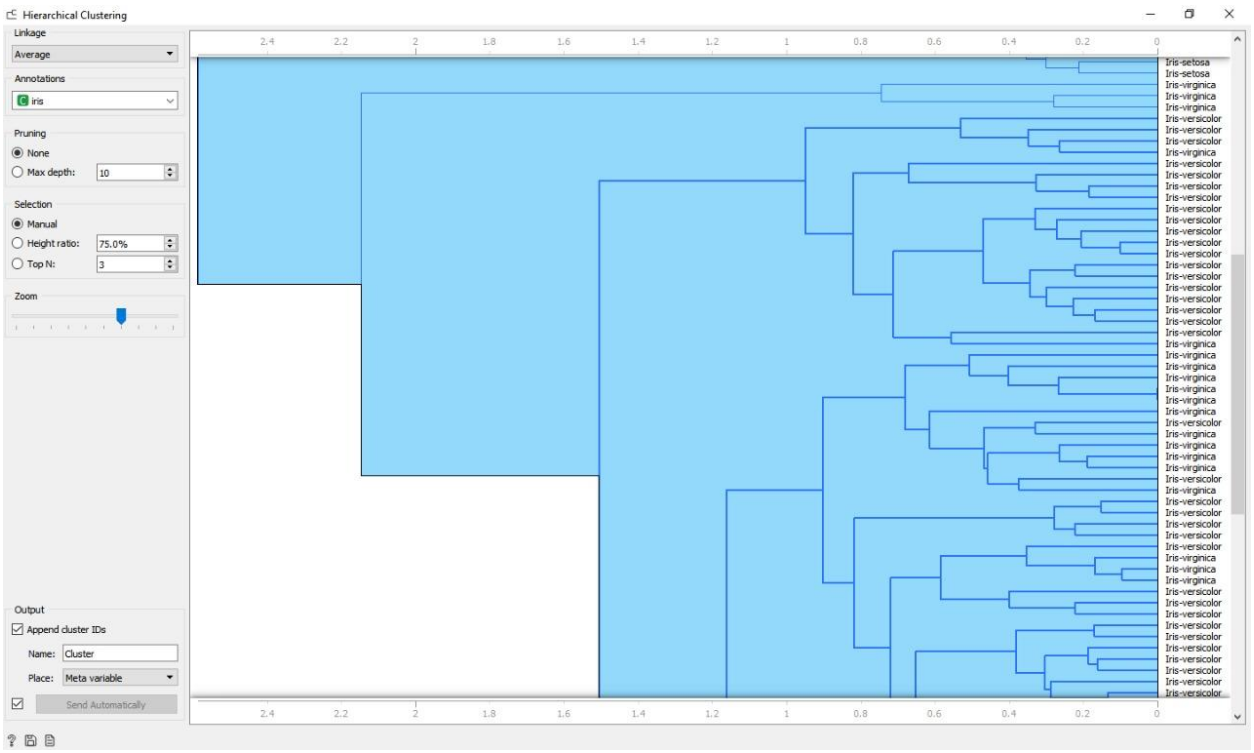
Follow the same procedure from Distance and Select Hierarchical Clustering.



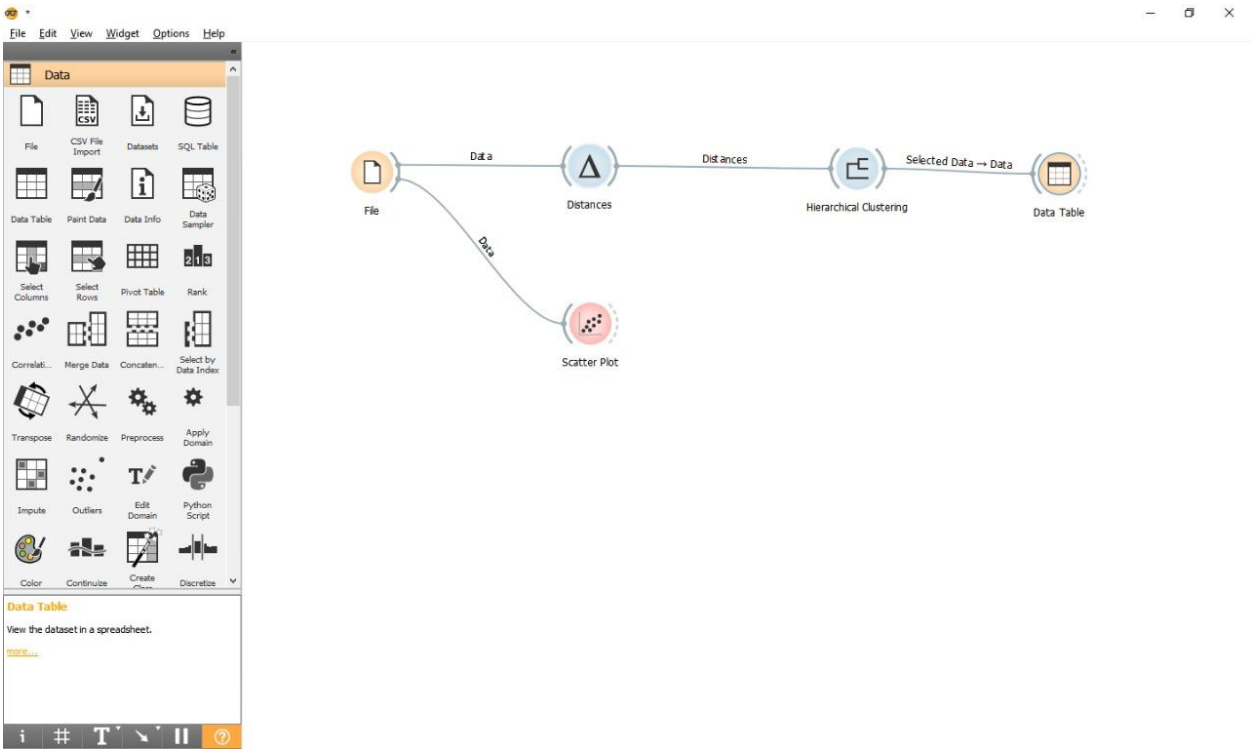
Double click on the hierarchical clustering a dialogue box appears.



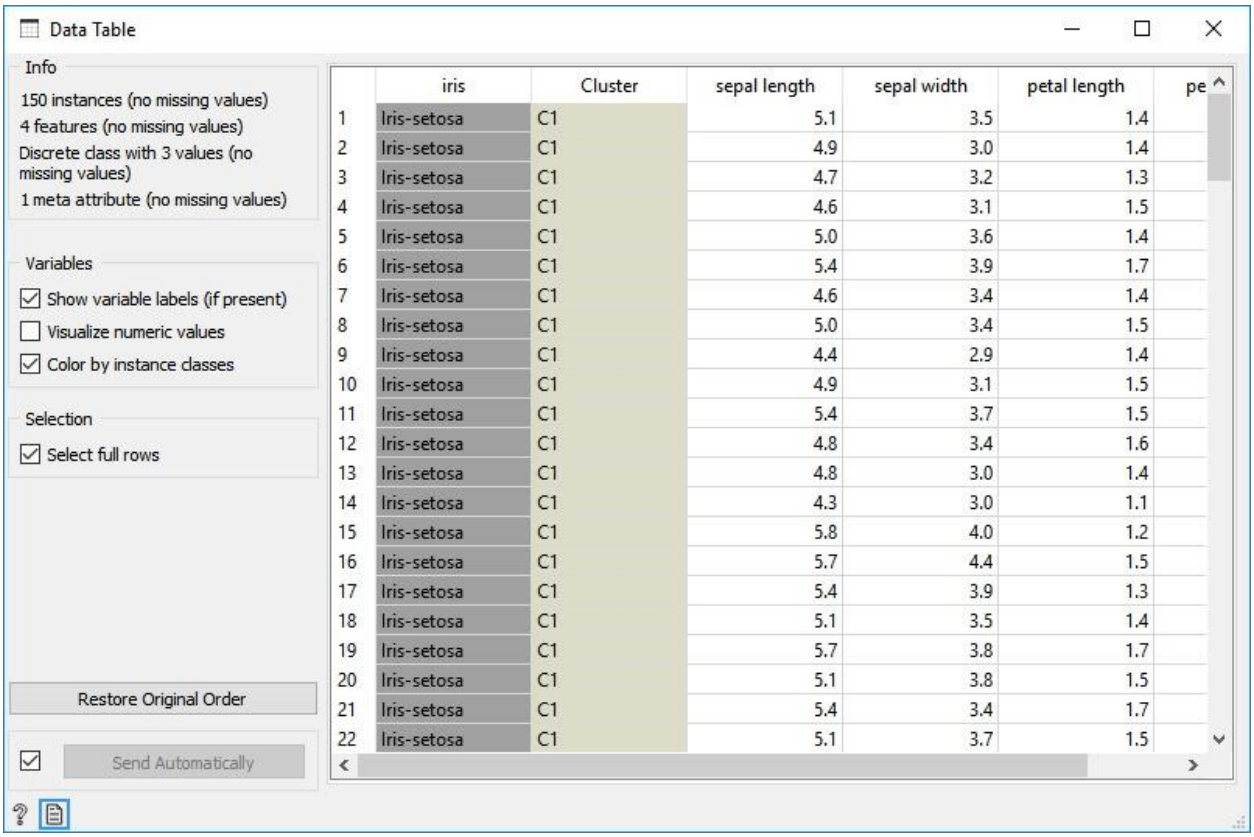
Now select the sub cluster as shown in below.



Now click on hierarchical clustering and select data table.

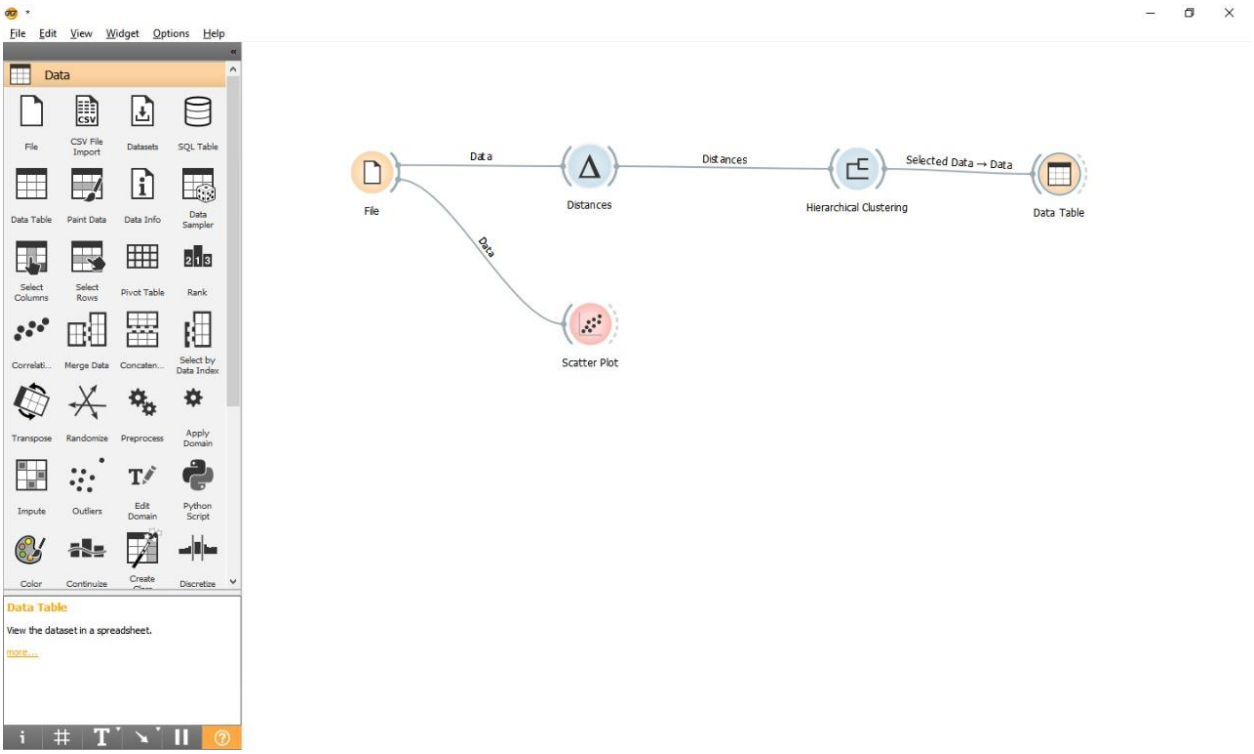


Double click on it and the following table will appear.

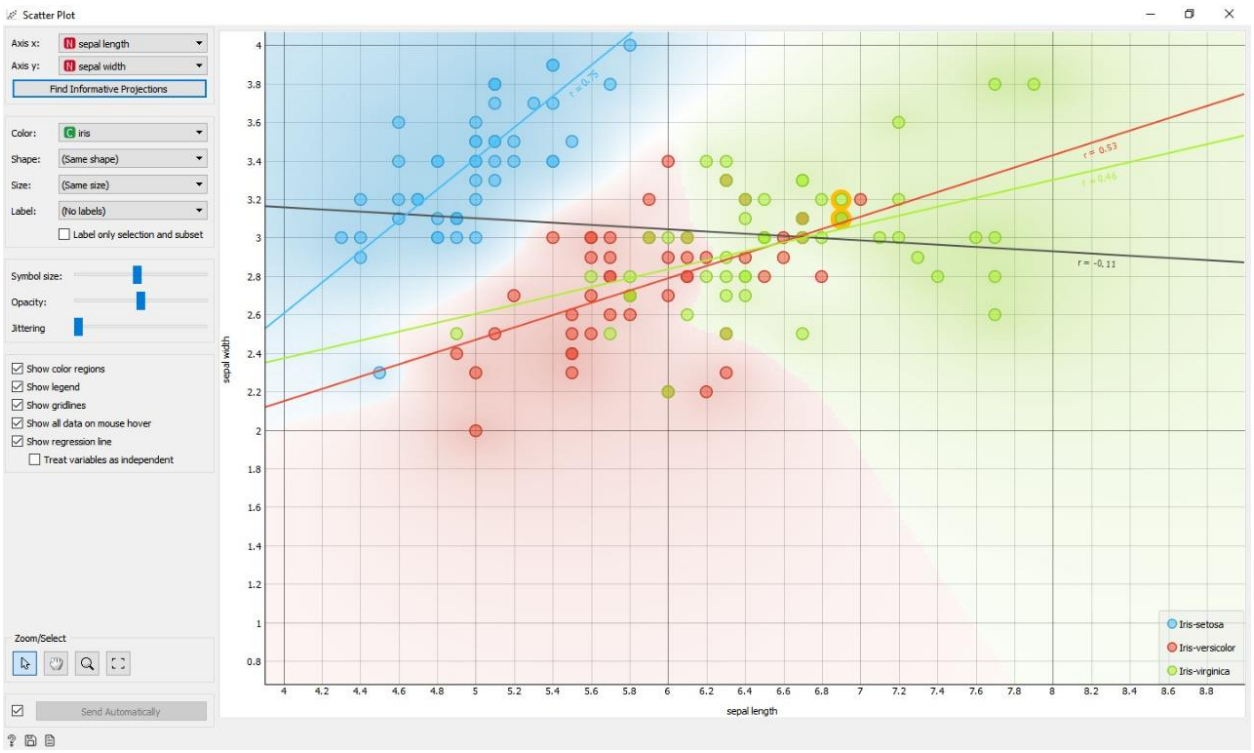


	iris	Cluster	sepal length	sepal width	petal length	pe
1	Iris-setosa	C1	5.1	3.5	1.4	
2	Iris-setosa	C1	4.9	3.0	1.4	
3	Iris-setosa	C1	4.7	3.2	1.3	
4	Iris-setosa	C1	4.6	3.1	1.5	
5	Iris-setosa	C1	5.0	3.6	1.4	
6	Iris-setosa	C1	5.4	3.9	1.7	
7	Iris-setosa	C1	4.6	3.4	1.4	
8	Iris-setosa	C1	5.0	3.4	1.5	
9	Iris-setosa	C1	4.4	2.9	1.4	
10	Iris-setosa	C1	4.9	3.1	1.5	
11	Iris-setosa	C1	5.4	3.7	1.5	
12	Iris-setosa	C1	4.8	3.4	1.6	
13	Iris-setosa	C1	4.8	3.0	1.4	
14	Iris-setosa	C1	4.3	3.0	1.1	
15	Iris-setosa	C1	5.8	4.0	1.2	
16	Iris-setosa	C1	5.7	4.4	1.5	
17	Iris-setosa	C1	5.4	3.9	1.3	
18	Iris-setosa	C1	5.1	3.5	1.4	
19	Iris-setosa	C1	5.7	3.8	1.7	
20	Iris-setosa	C1	5.1	3.8	1.5	
21	Iris-setosa	C1	5.4	3.4	1.7	
22	Iris-setosa	C1	5.1	3.7	1.5	

Now click on file and select Scatter plot.

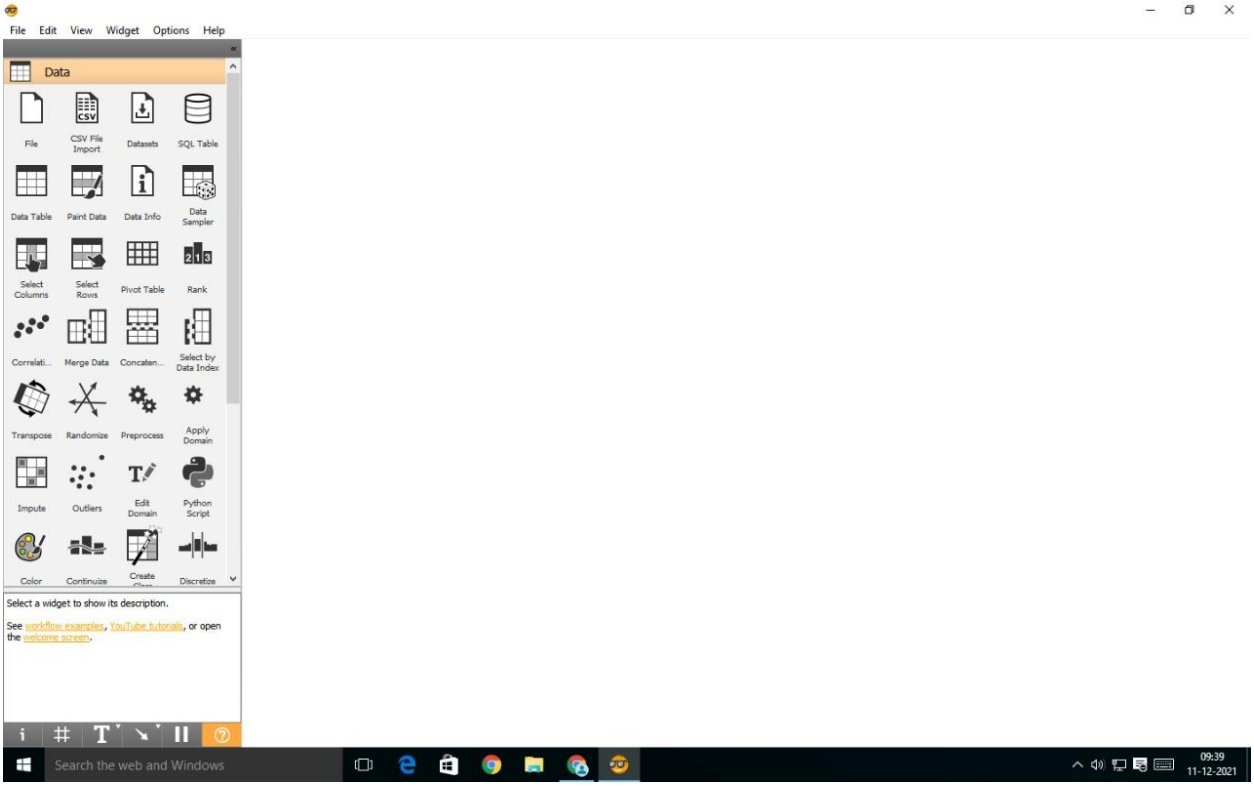


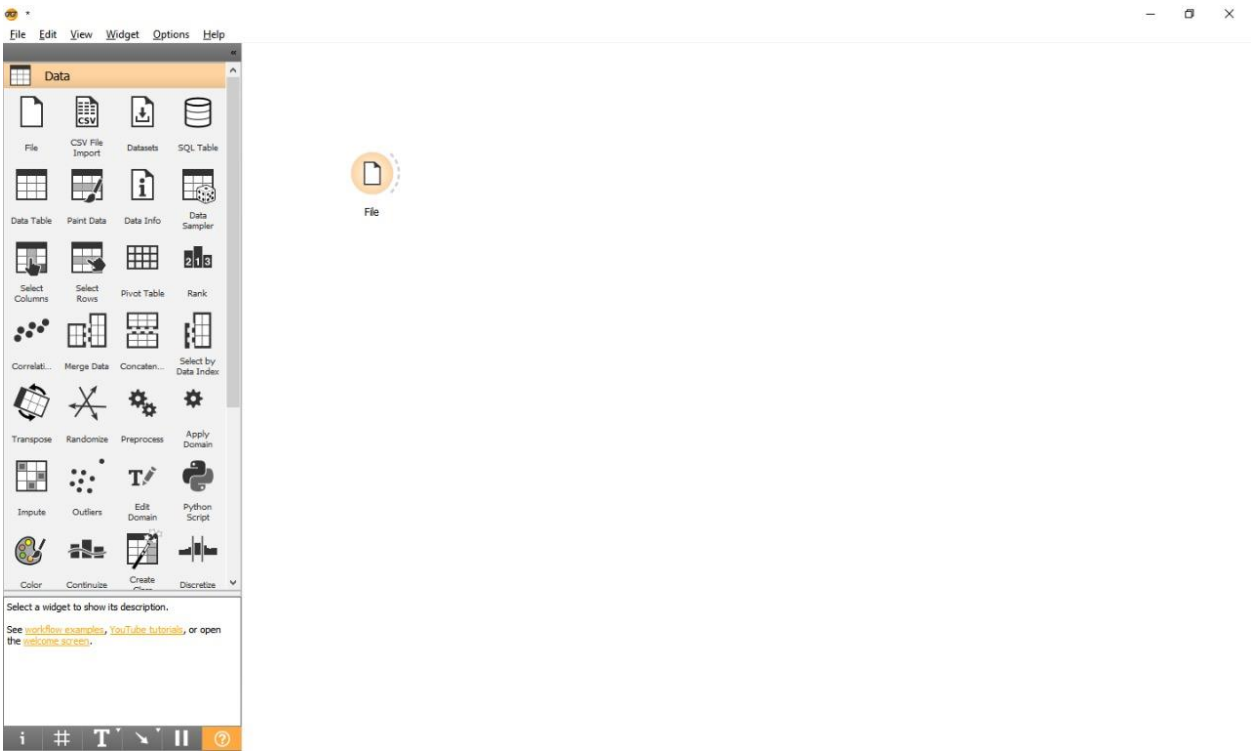
By double clicking on the dialogue box the following graph will be shown.


Scatter Plot
Axis x: sepal length
Axis y: sepal width
Find Informative Projections
Color: iris
Shape: (Same shape)
Size: (Same size)
Label: (No labels)
Label only selection and subset
Symbol size:
Opacity:
Jittering
Show color regions
Show legend
Show gridlines
Show all data on mouse hover
Show regression line
Treat variables as independent
Zoom/Select
Send Automatically
sepal width
sepal length
r = 0.53
r = -0.11
Iris-setosa
Iris-versicolor
Iris-virginica

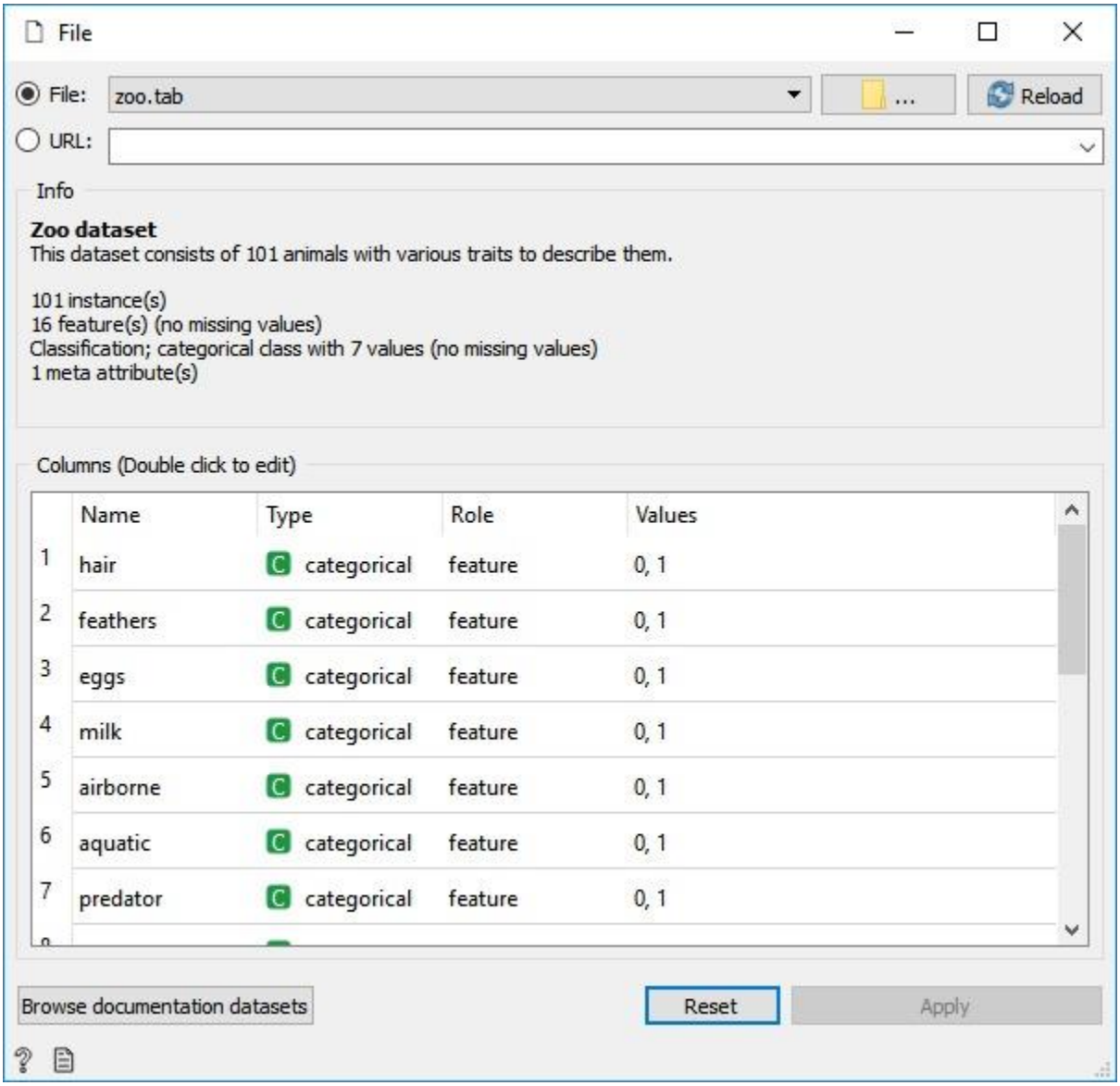
Classification.

Open Orange Application. Select File from Data.

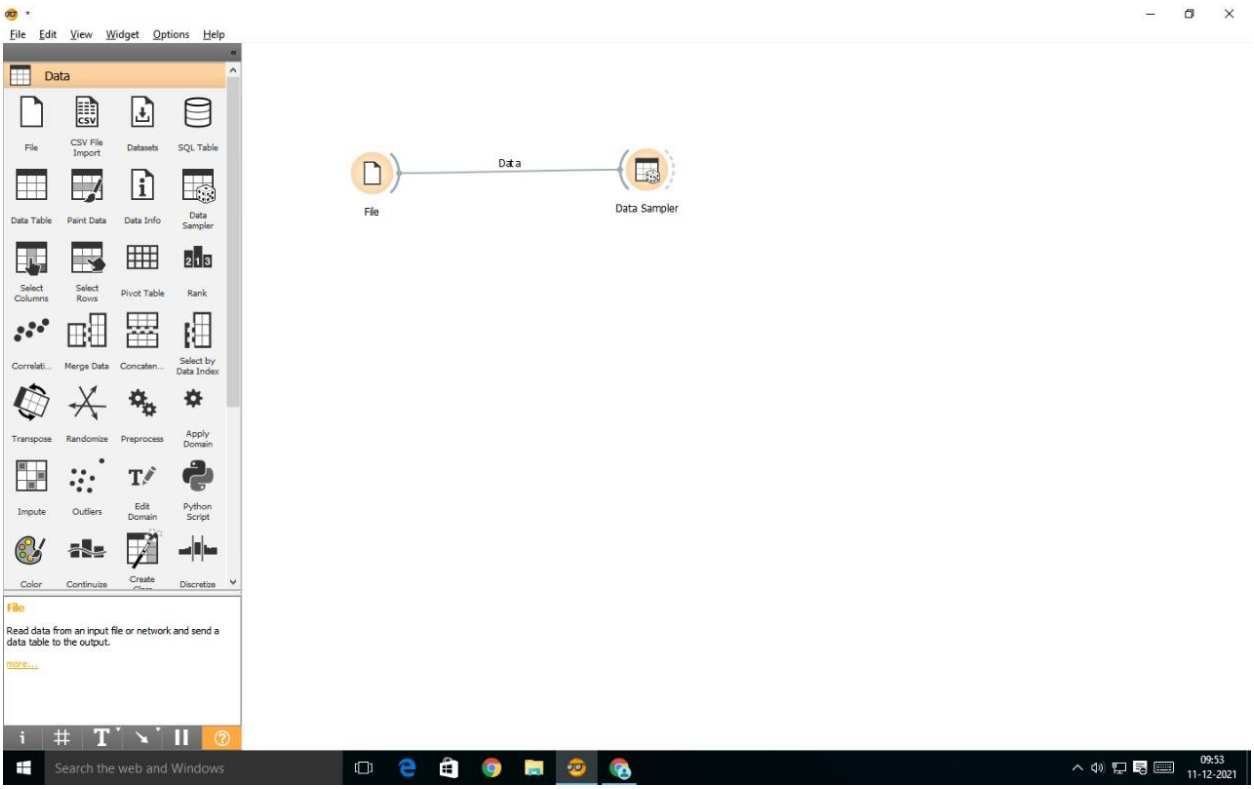




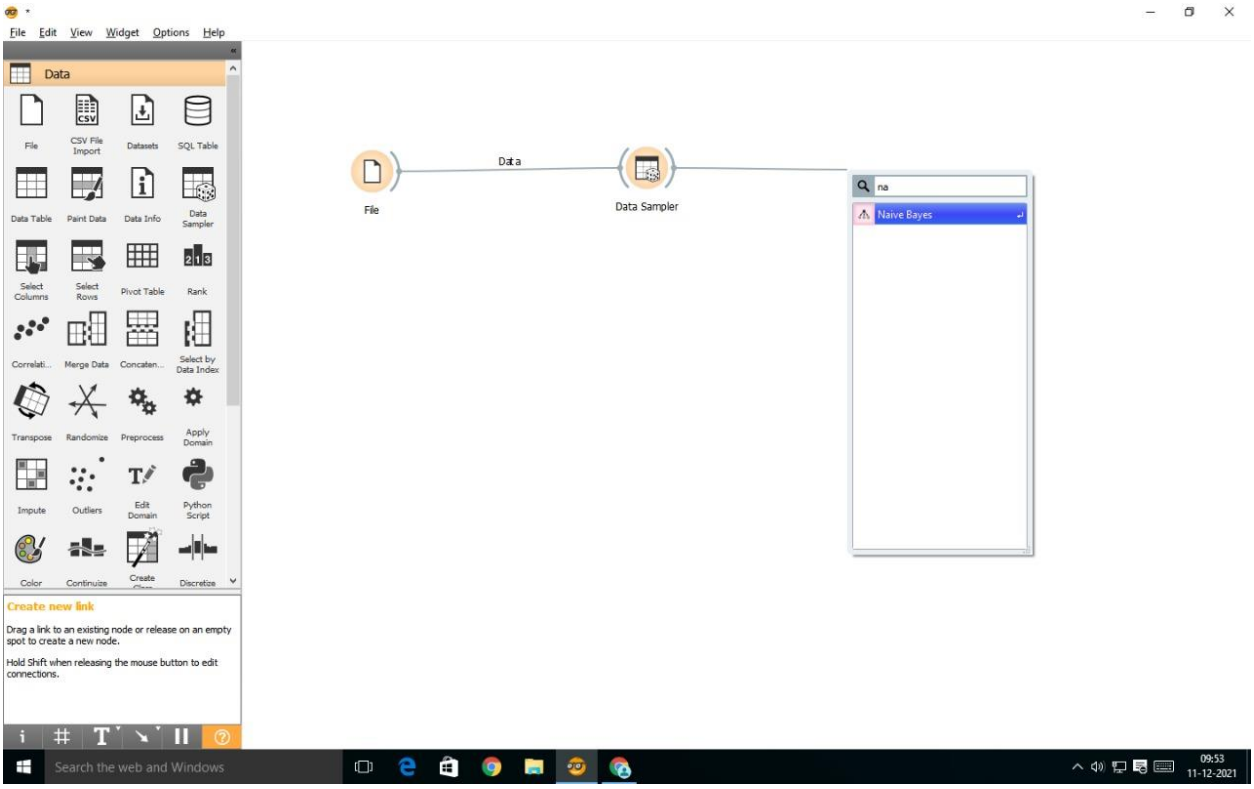
Double Click on the file and select zoo.tab and close it.

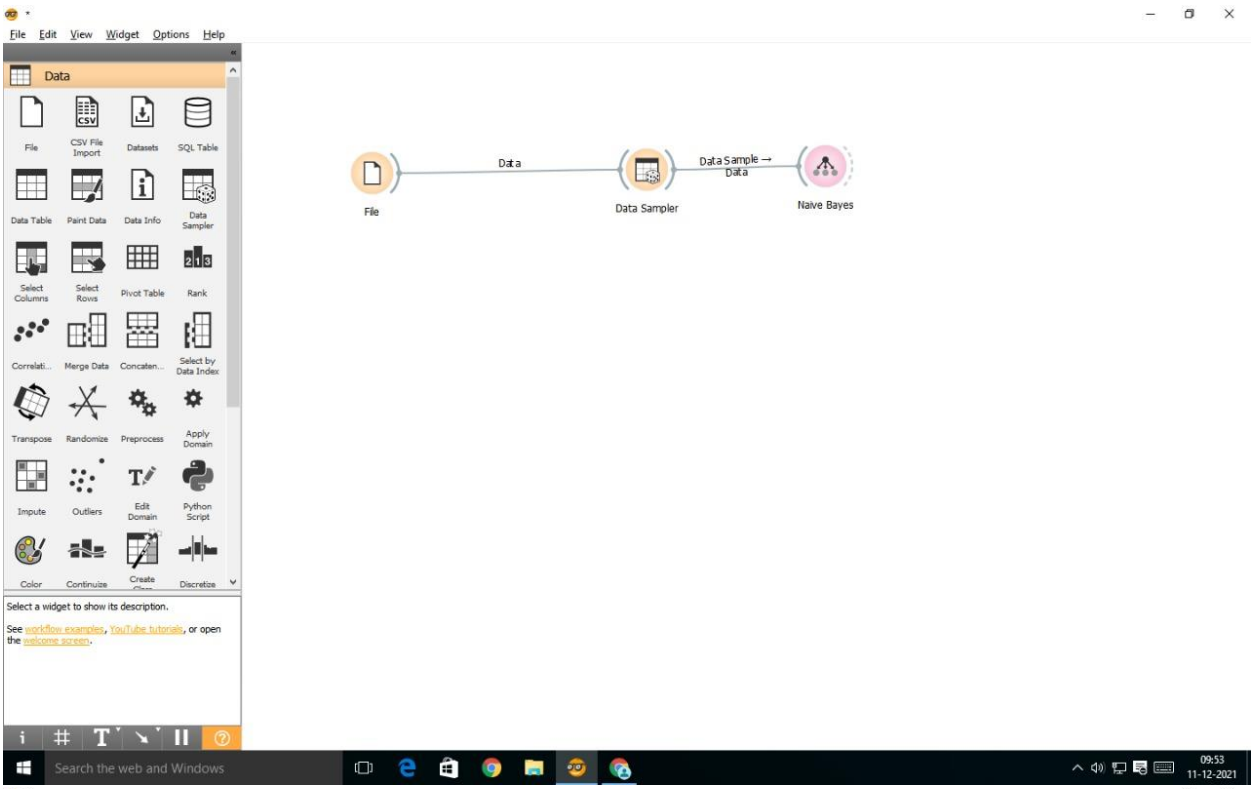


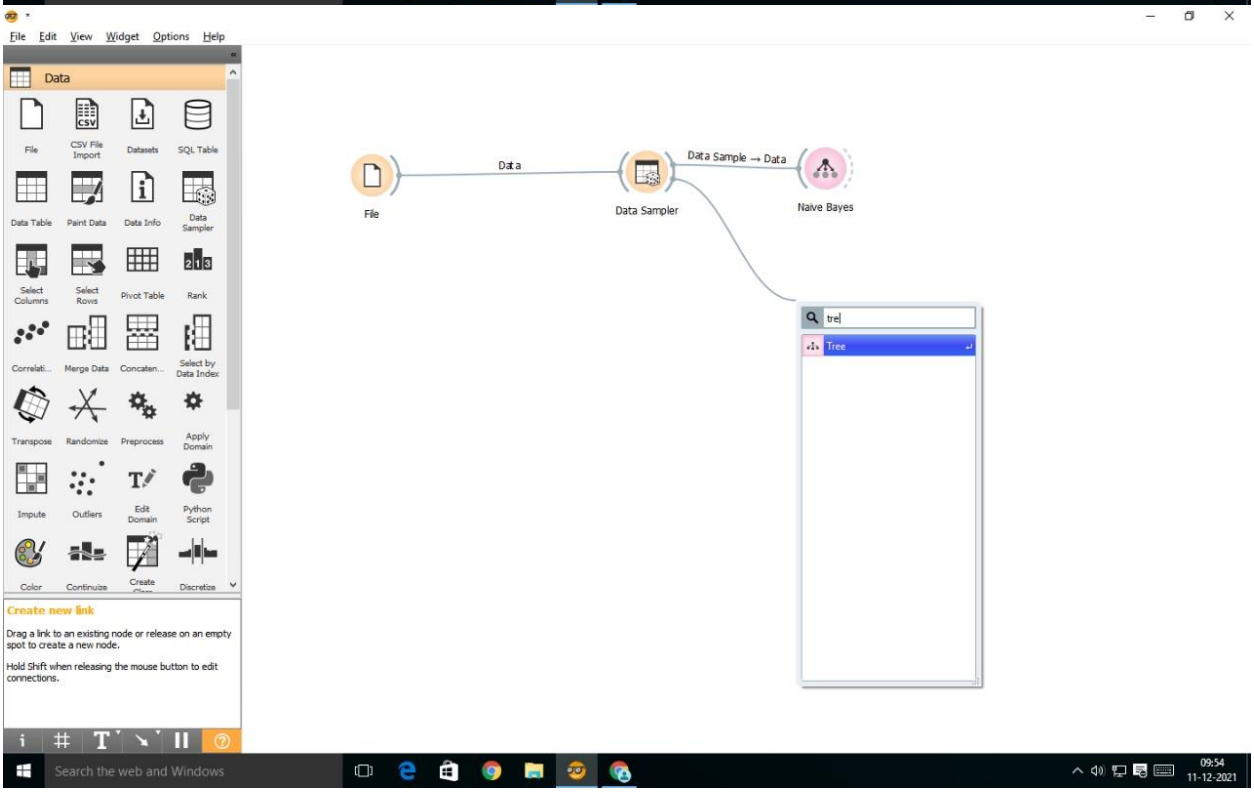
Select the file and drag the cursor and select data sampler from the list.

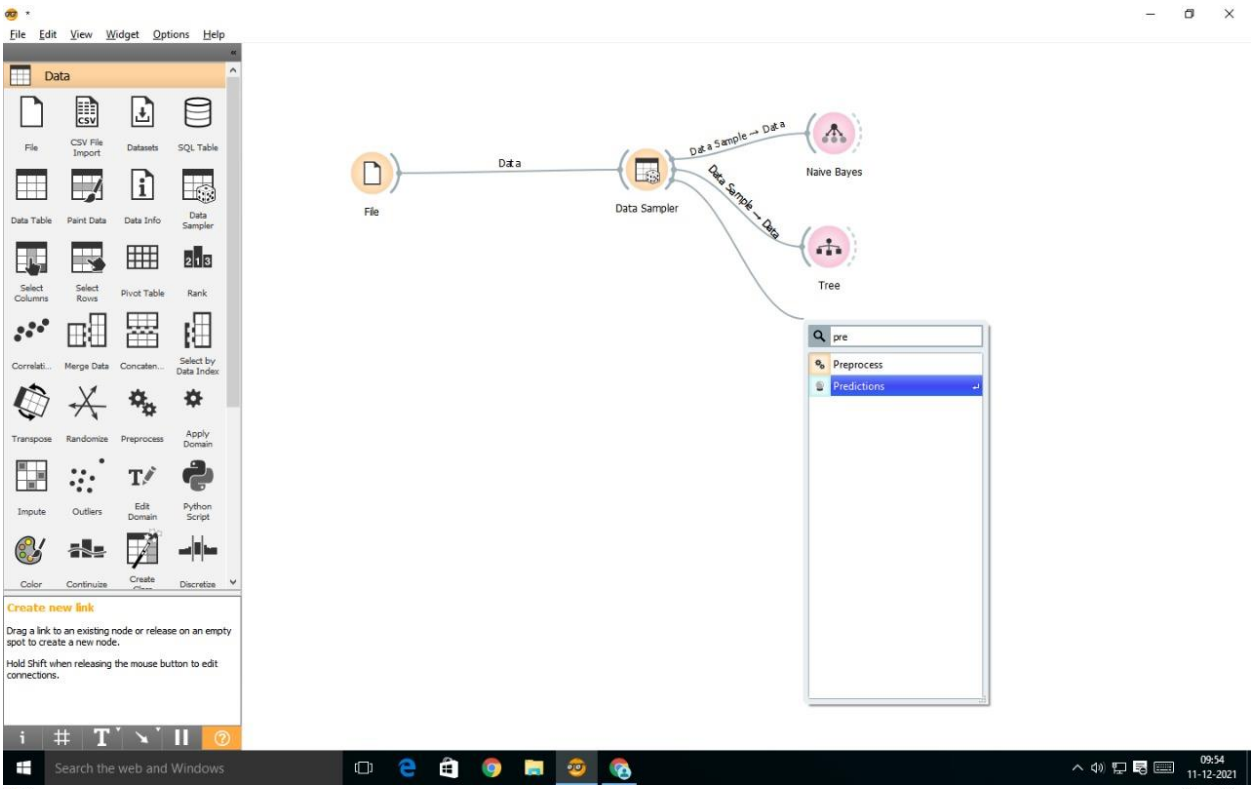


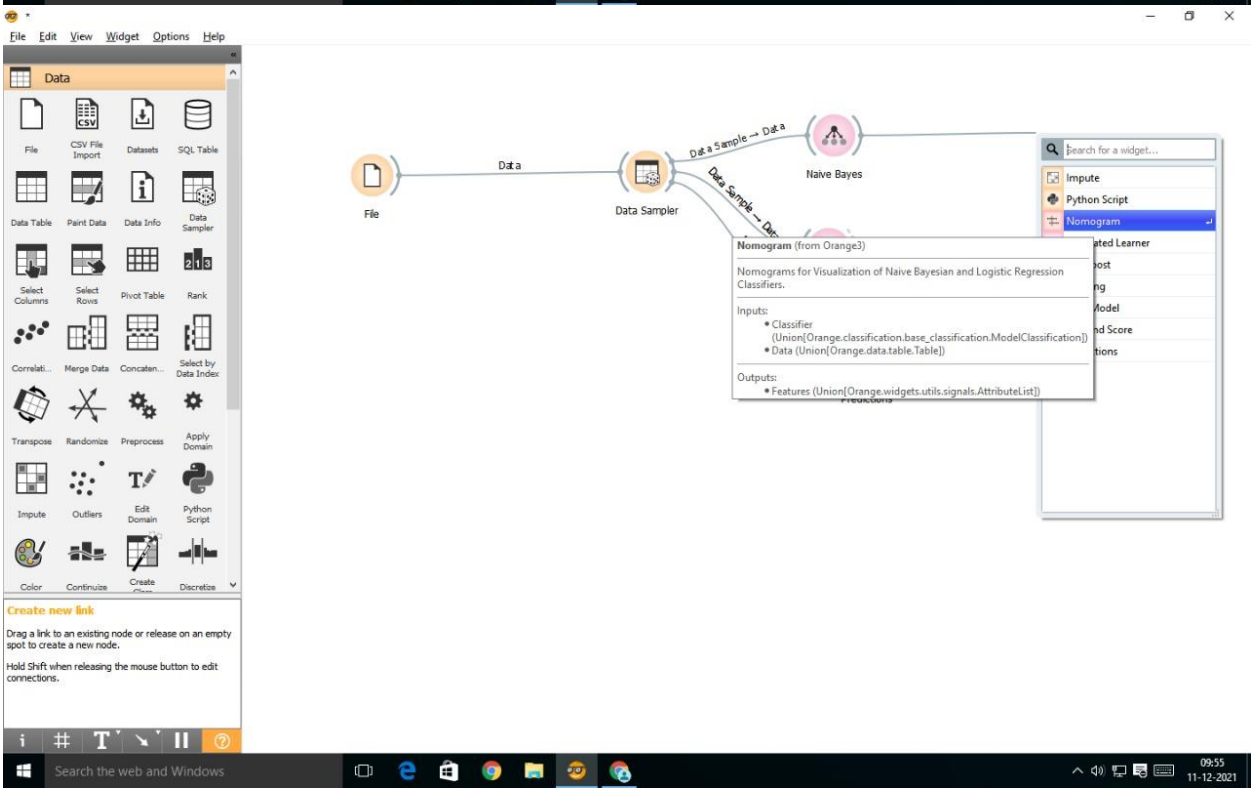
Select Naïve Bayes, Tree and Prediction from the list similar to data sampler.



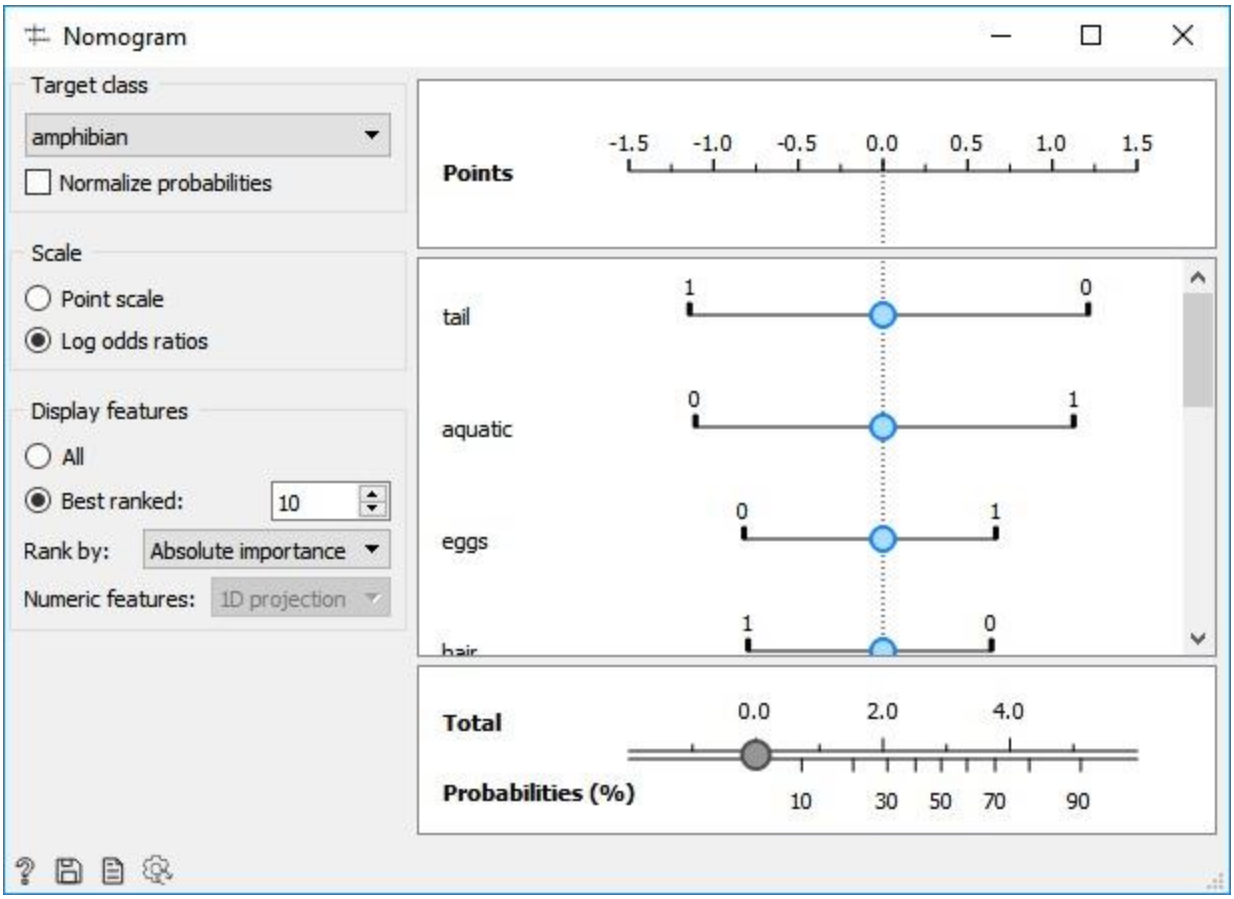

File Edit View Widget Options Help
Data
File
CSV File Import
Datasets
SQL Table
Data Table
Paint Data
Data Info
Data Sampler
Select Columns
Select Rows
Pivot Table
Rank
Correlati...
Merge Data
Concaten...
Select by Data Index
Transpose
Randomize
Preprocess
Apply Domain
Impute
Outliers
Edit Domain
Python Script
Color
Continuize
Discretize
Select a widget to show its description.
See workflow examples, YouTube tutorials, or open the welcome screen.
Data
Data Sample → Data
File
Data Sampler
Naive Bayes
Search the web and Windows
09:53
11-12-2021

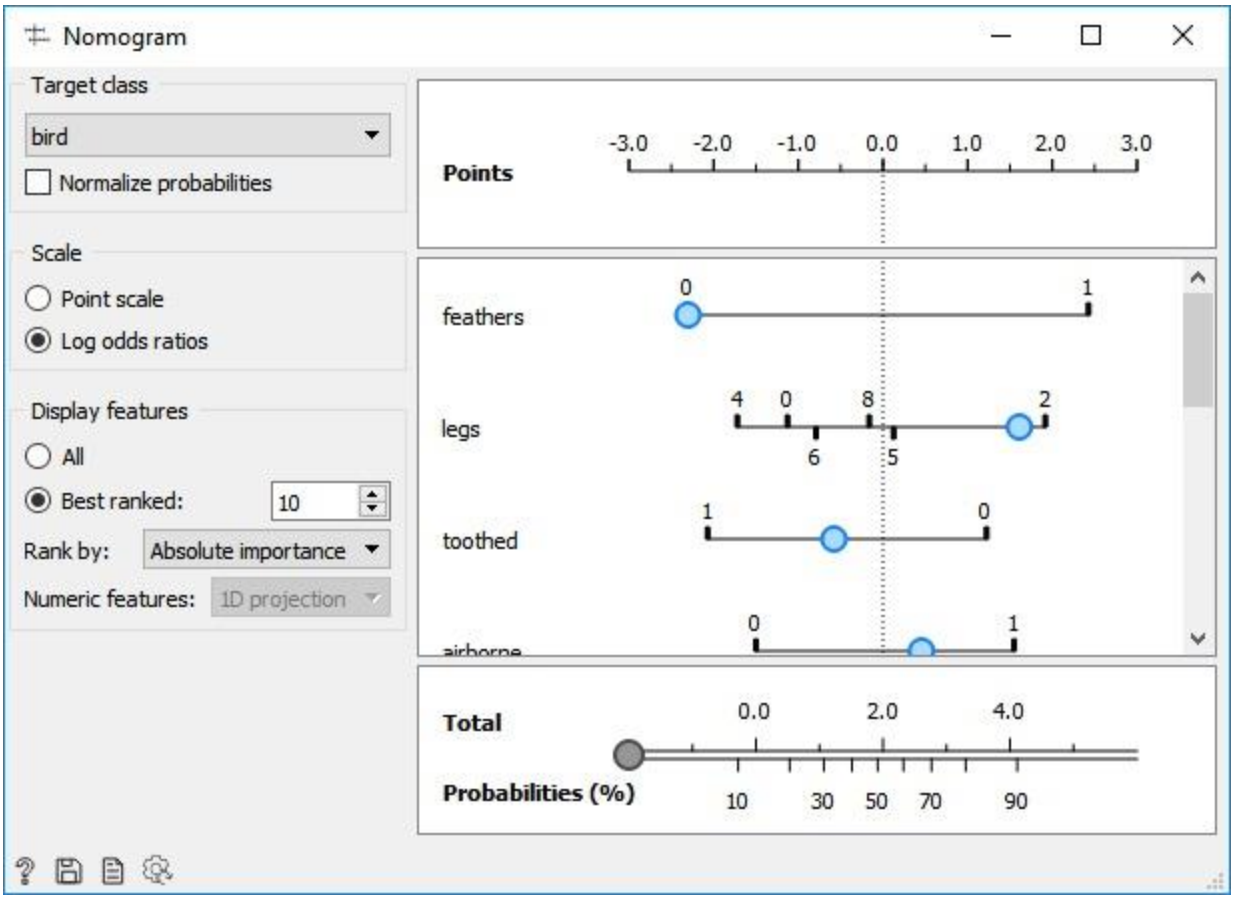

File Edit View Widget Options Help
Data
File
CSV File Import
Datasets
SQL Table
Data Table
Paint Data
Data Info
Data Sampler
Select Columns
Select Rows
Pivot Table
Rank
Correlati...
Merge Data
Concaten...
Select by Data Index
Transpose
Randomize
Preprocess
Apply Domain
Impute
Outliers
Edit Domain
Python Script
Color
Continuize
Discretize
Create new link
Drag a link to an existing node or release on an empty spot to create a new node.
Hold Shift when releasing the mouse button to edit connections.
Data
Data Sample → Data
File
Data Sampler
Naive Bayes
tre
Tree
Search the web and Windows
09:54
11-12-2021



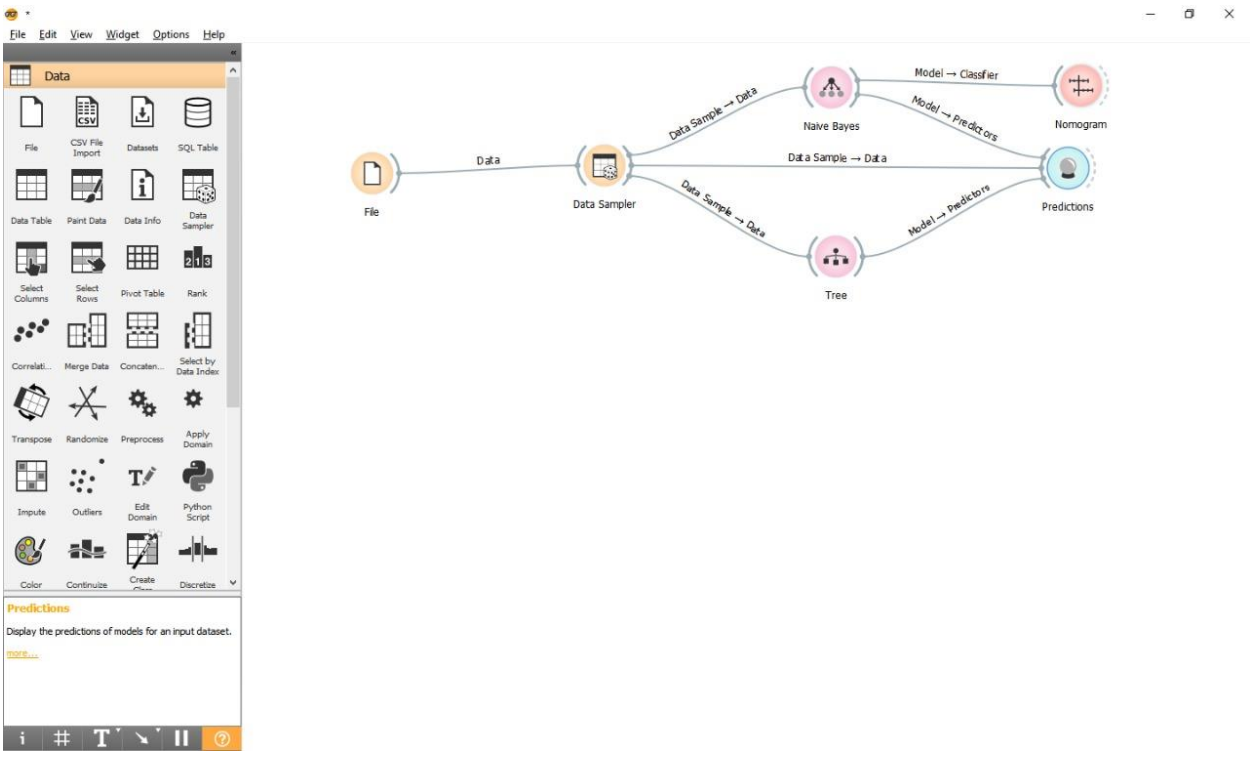


Double click on the nomogram and the following dialogue box will appear.

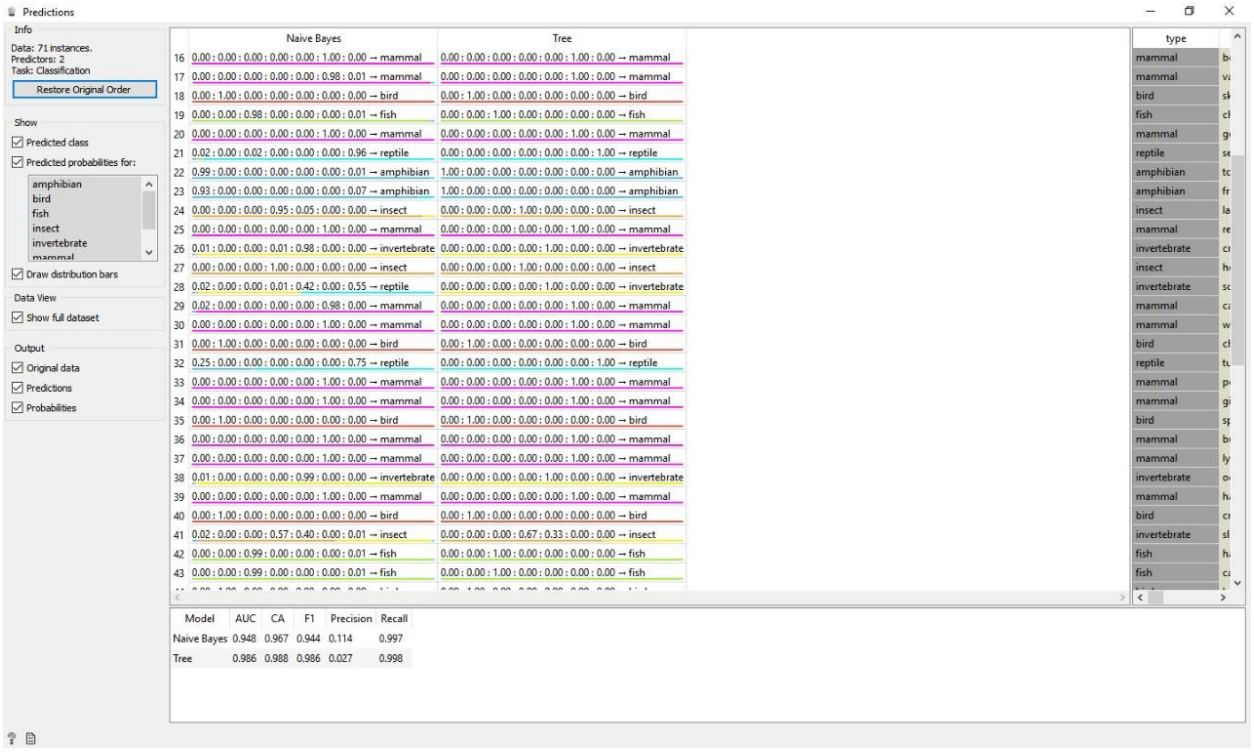

Nomogram
Target class
amphibian
Normalize probabilities
Scale
Point scale
Log odds ratios
Display features
All
Best ranked:
10
Rank by:
Absolute importance
Numeric features:
1D projection
Points
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
tail
1
0
aquatic
0
1
eggs
0
1
hair
1
0
Total
0.0
2.0
4.0
Probabilities (%)
10
30
50
70
90



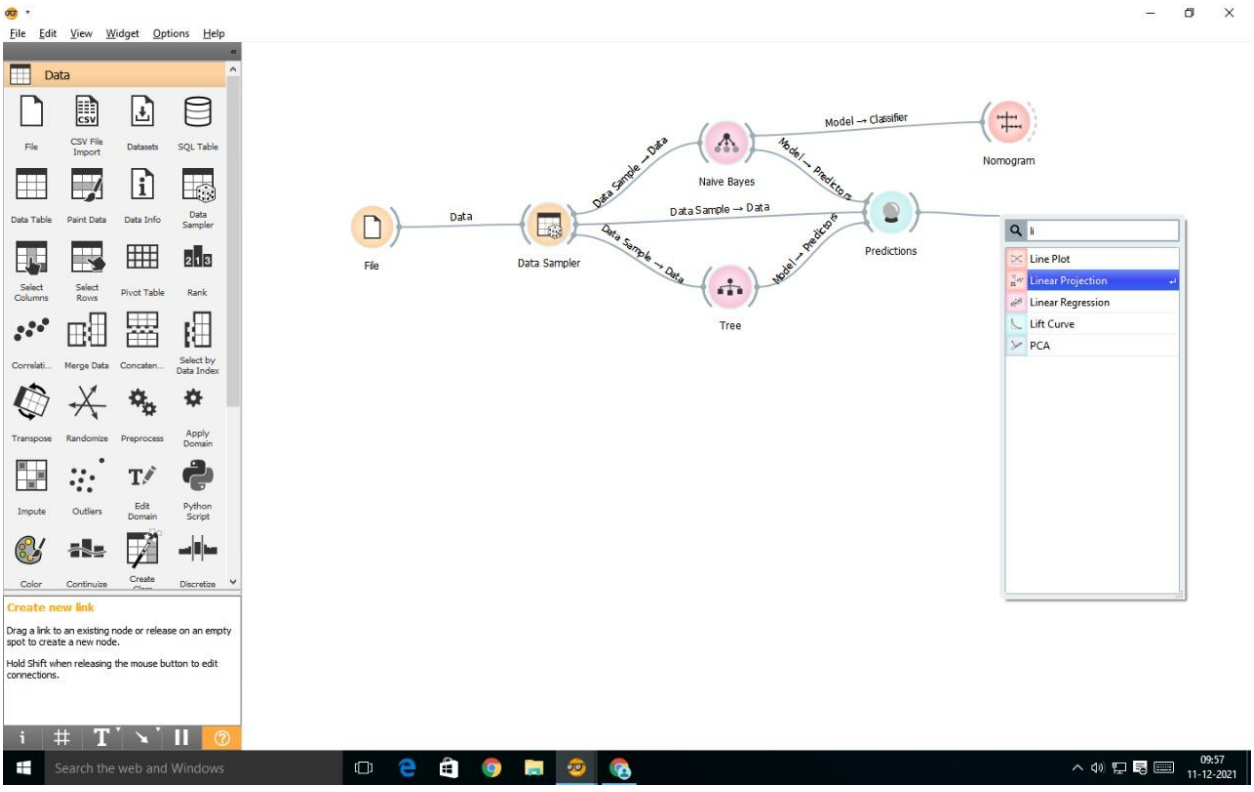
Connect Naïve Bayes and Tree with Prediction.

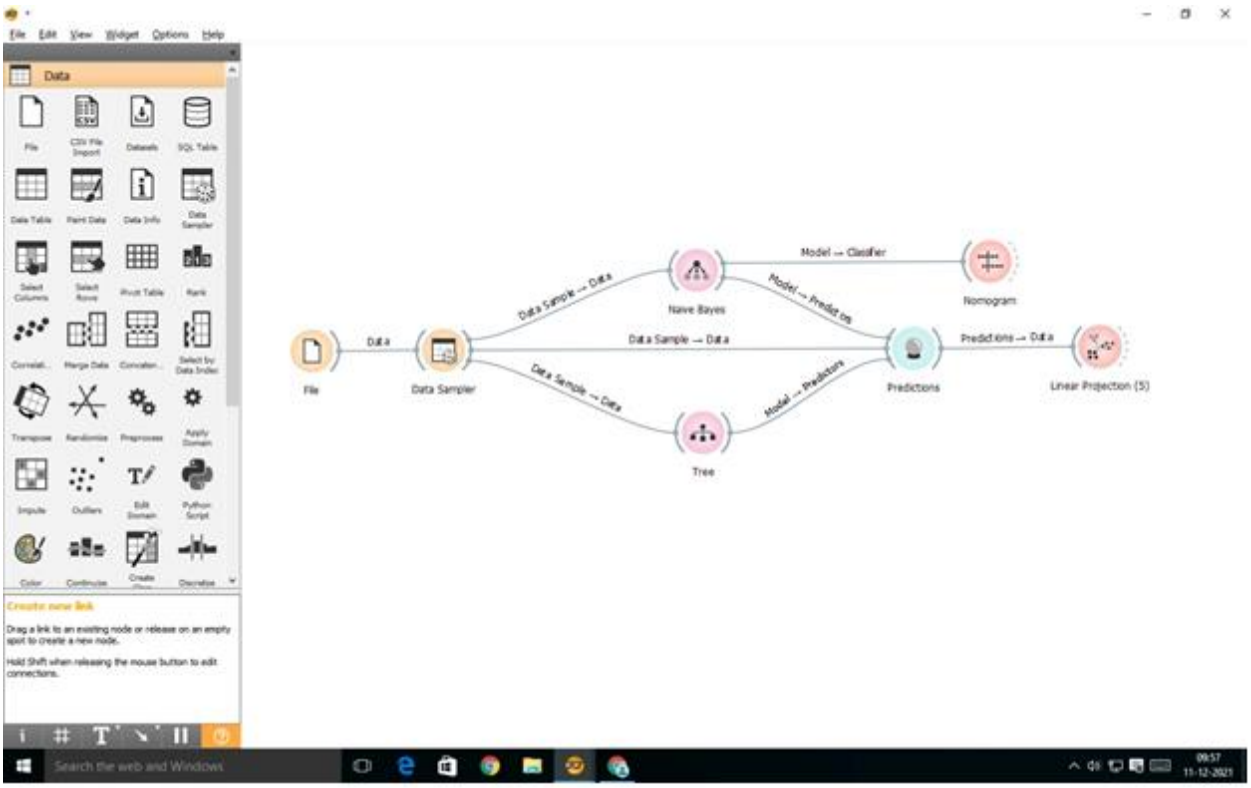


Double click on the prediction and following list will be displayed.

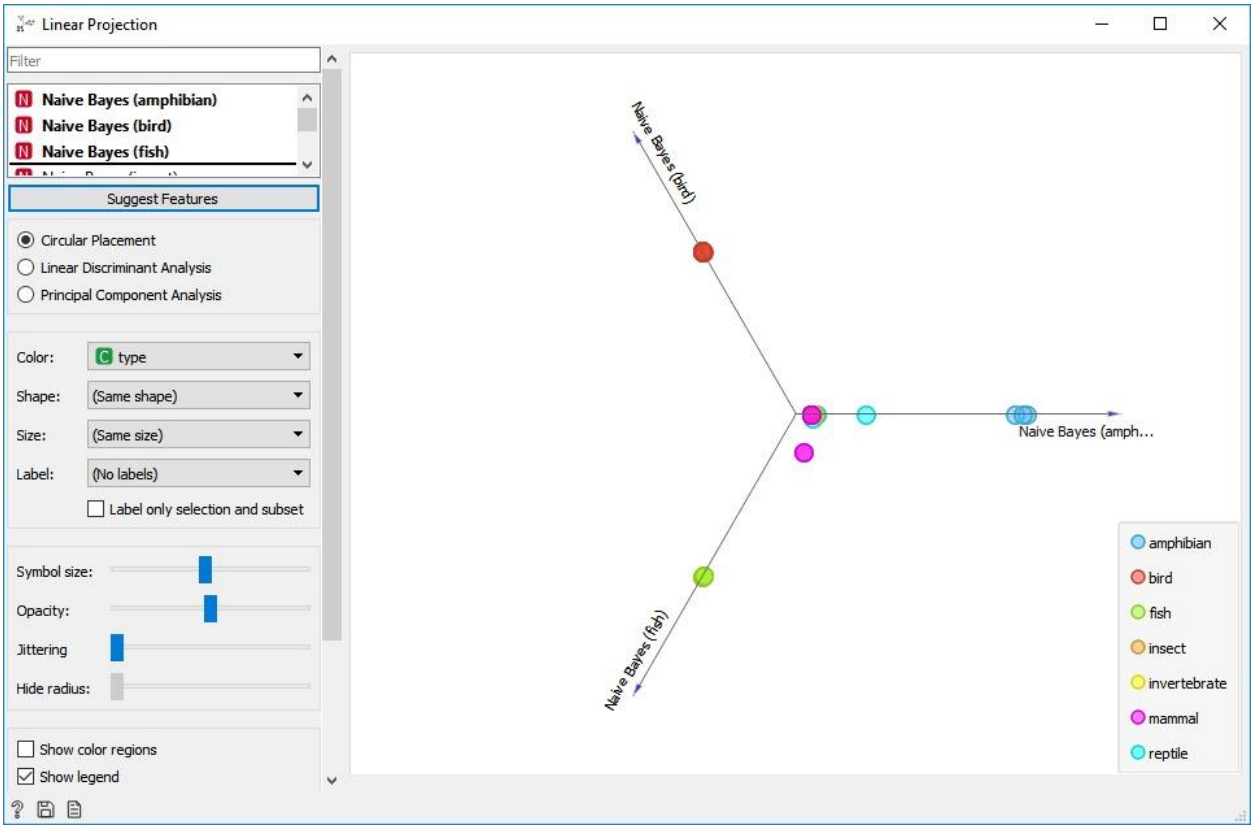


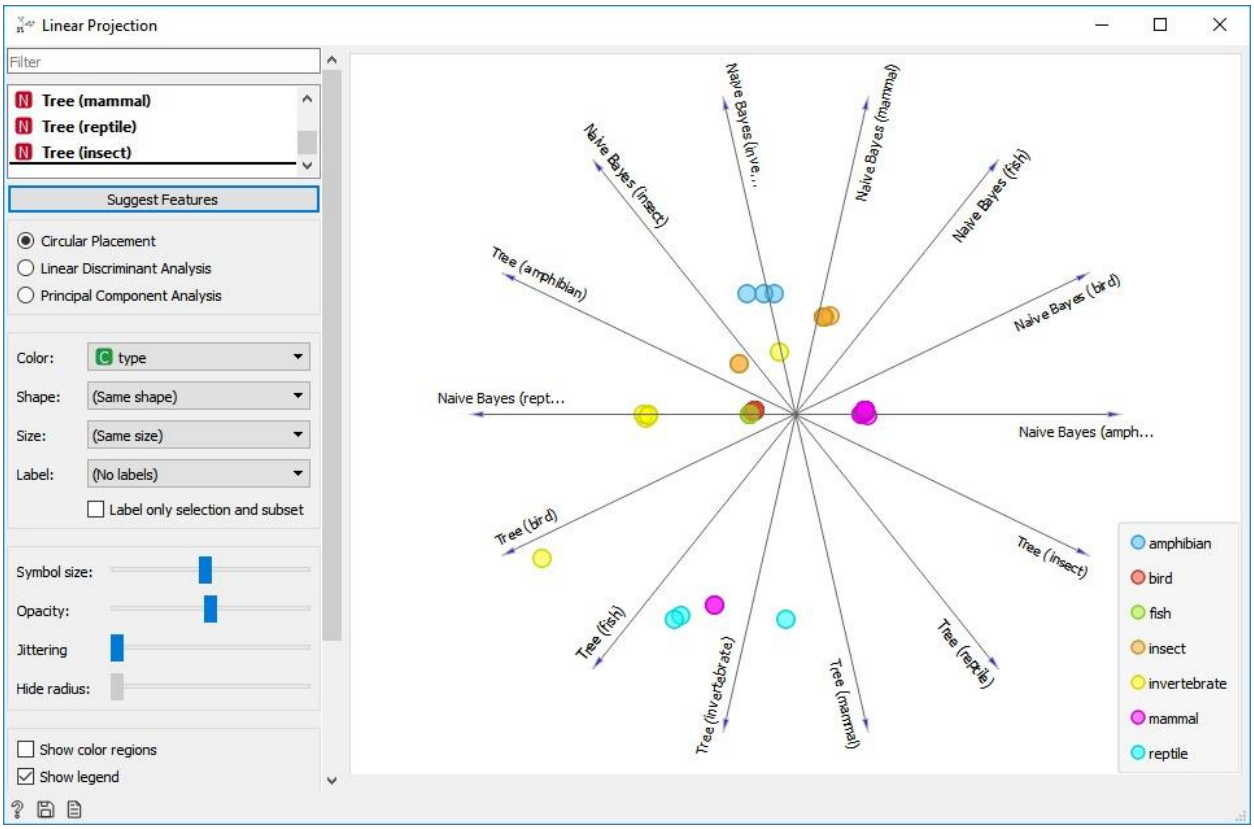
Afterwards select prediction and drag and create linear projection.





Double Click on Linear Projection and you can see the different classes of zoo animal.




Linear Projection
Filter
Tree (mammal)
Tree (reptile)
Tree (insect)
Suggest Features
Circular Placement
Linear Discriminant Analysis
Principal Component Analysis
Color:
type
Shape:
(Same shape)
Size:
(Same size)
Label:
(No labels)
Label only selection and subset
Symbol size:
Opacity:
Jittering
Hide radius:
Show color regions
Show legend
Naive Bayes (inve...
Naive Bayes (mammal)
Naive Bayes (insect)
Naive Bayes (fish)
Tree (amphibian)
Naive Bayes (bird)
Naive Bayes (rept...
Naive Bayes (amph...
Tree (bird)
Tree (insect)
Tree (fish)
Tree (reptile)
Tree (invertebrate)
Tree (mammal)
amphibian
bird
fish
insect
invertebrate
mammal
reptile