Report for Plots and Dendograms for Hierarchal Clustering Types

Dataset : Animal

Clustering Type : Hierarchal Clustering and its Linkage criteria

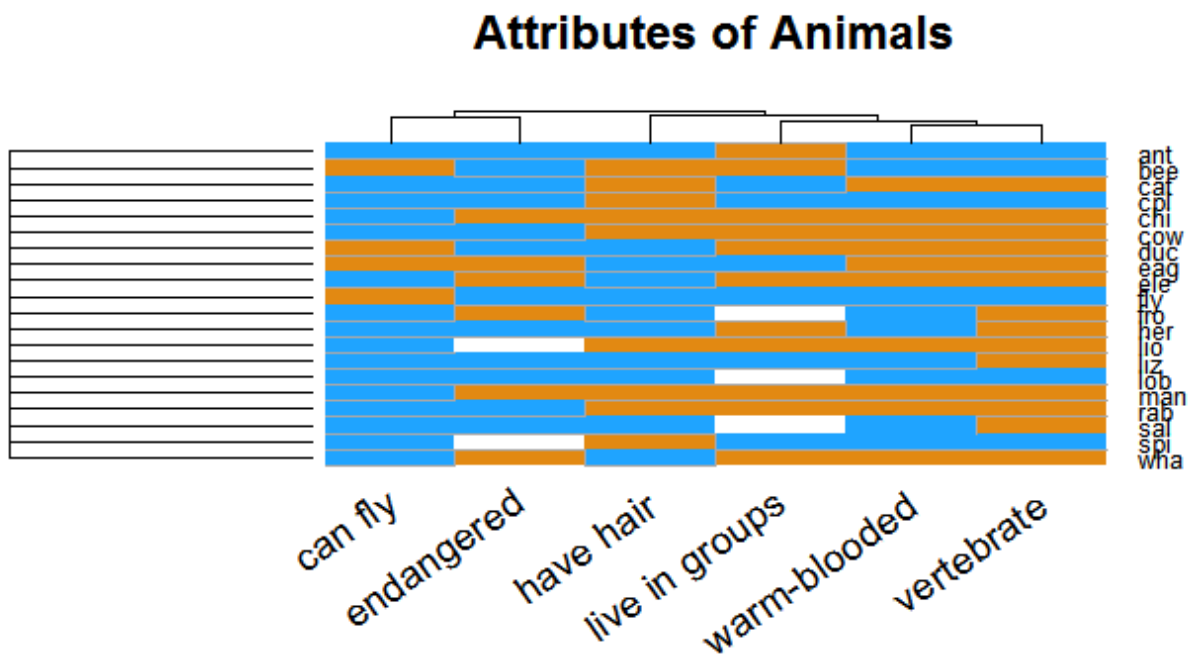
Motive: To check the clustering plots and dendograms of different linkages in Hierarchal Clustering

Observation :

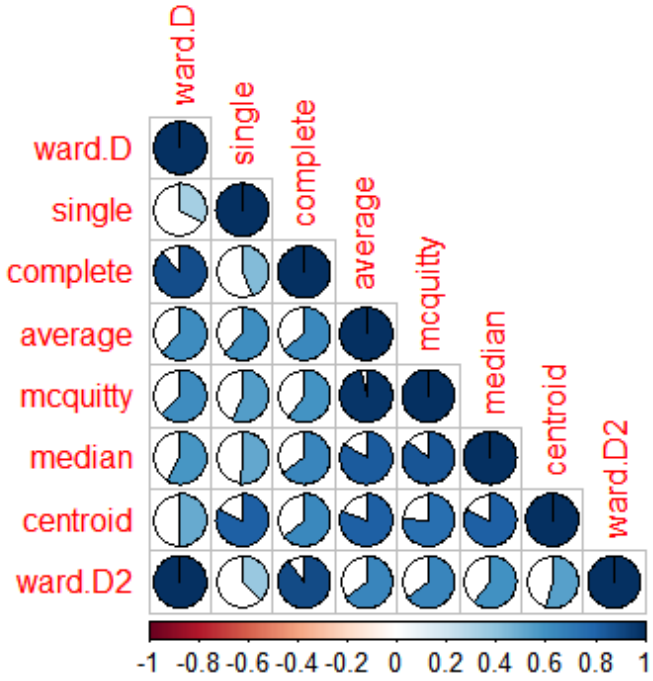
R-Studio

The given IRIS hierarchical clustering shows the below result in R :

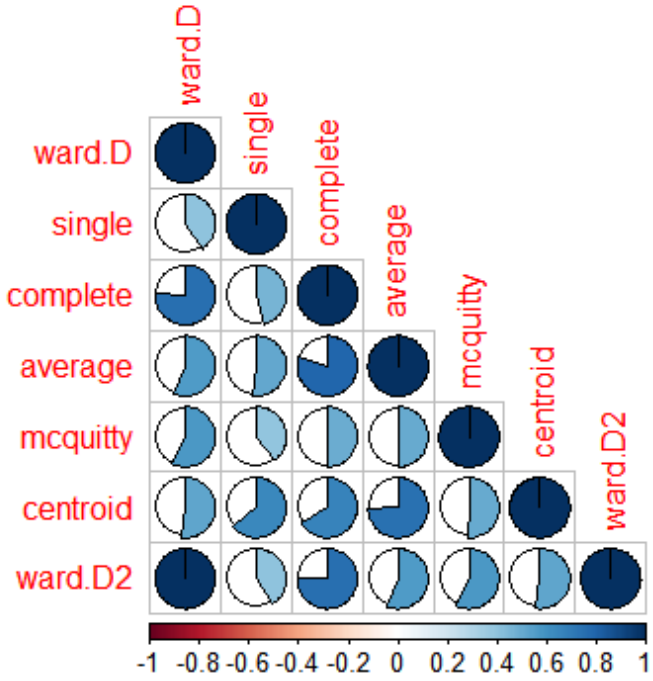
Hierarchal Cluster Dendogram



Heirarichal Cluster



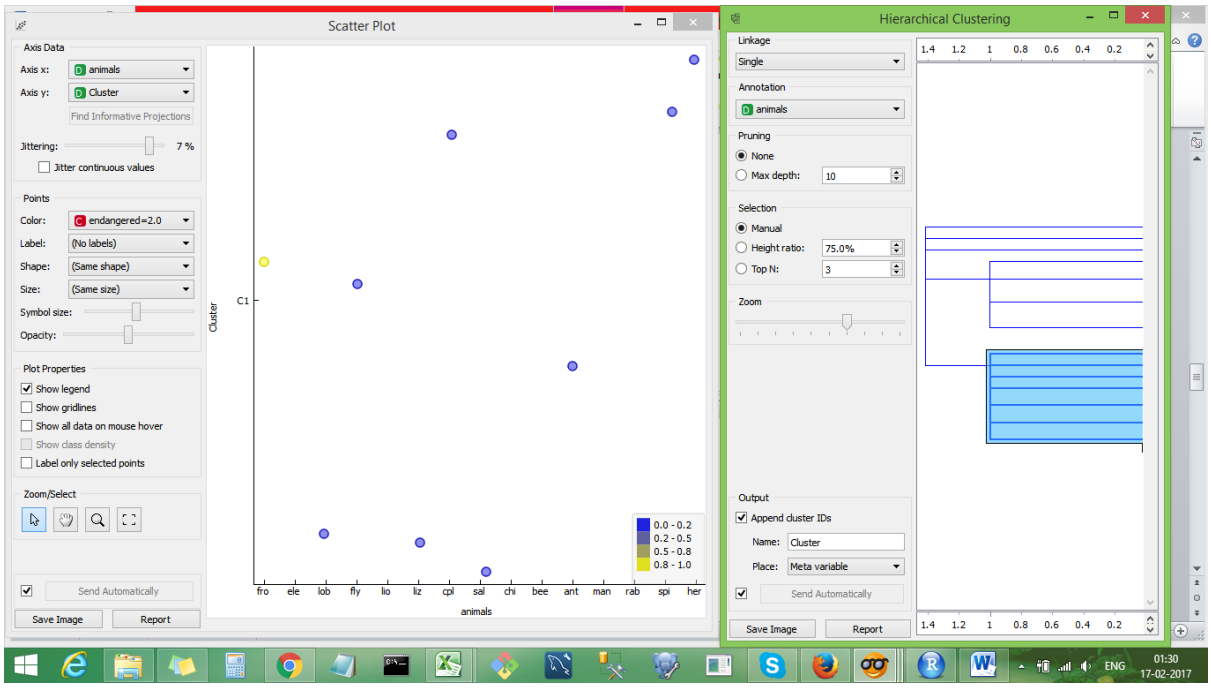
Heirarichal Cluster



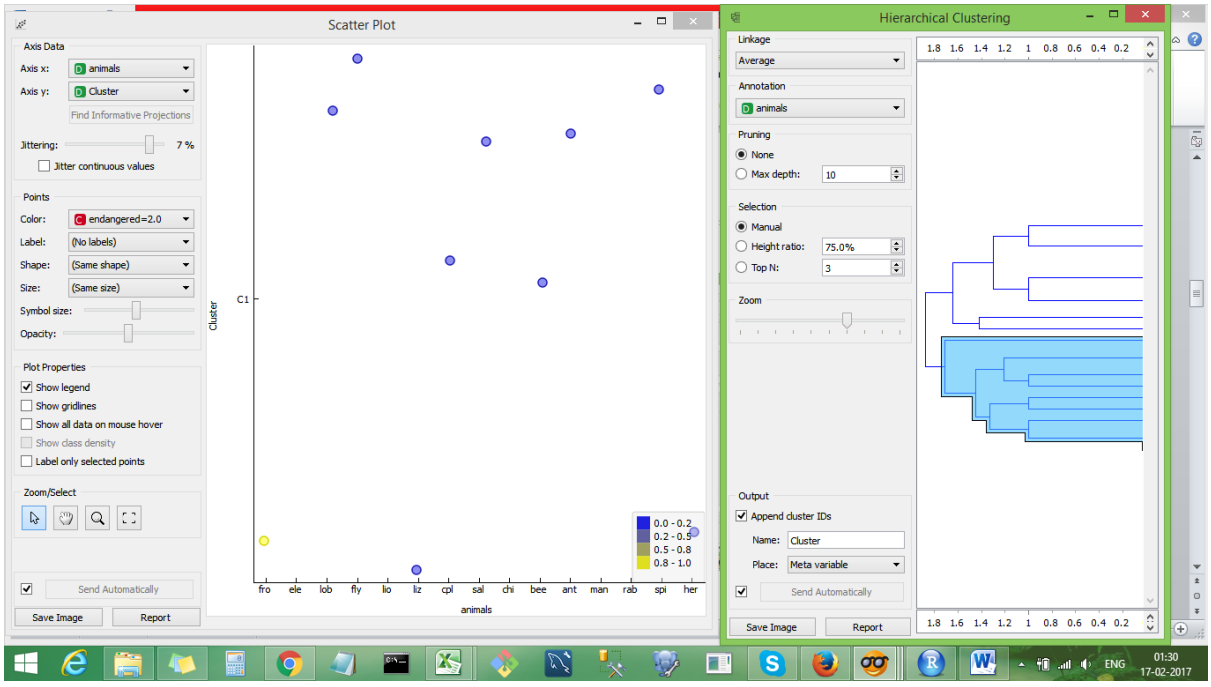
Orange

We see the result for the same data set in Orange, we get the below plots against the selected area on respective dendogram :

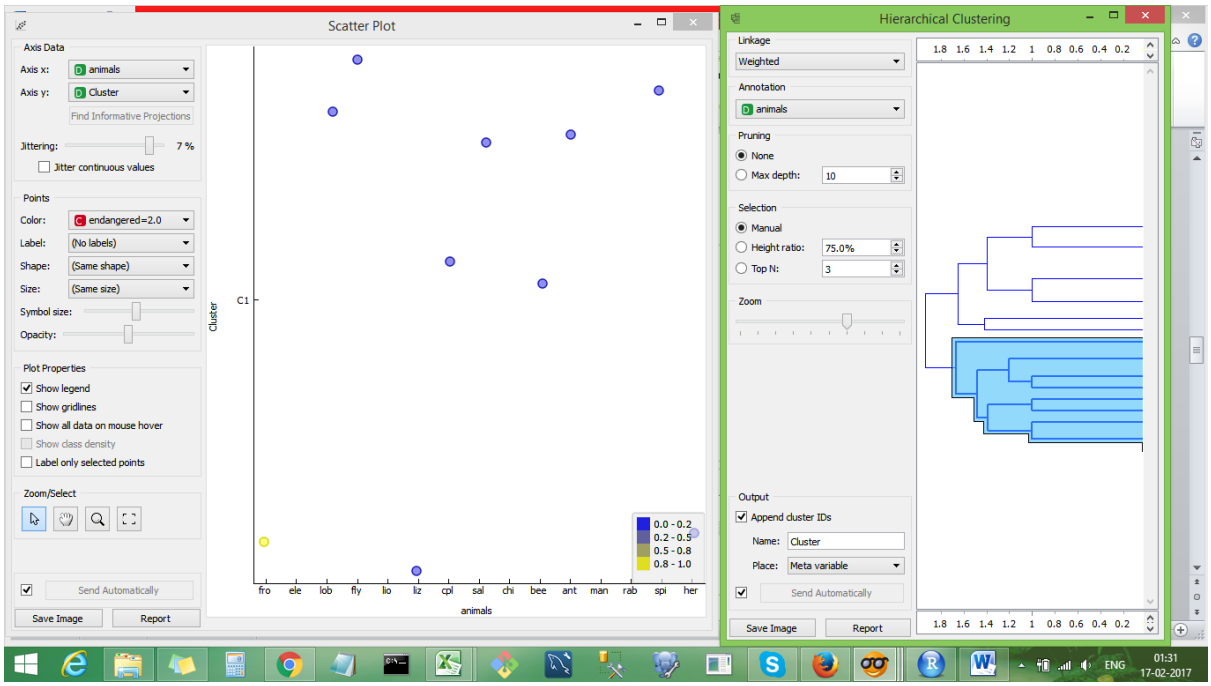
Dendogram Single Linkage Hierarchal Cluster



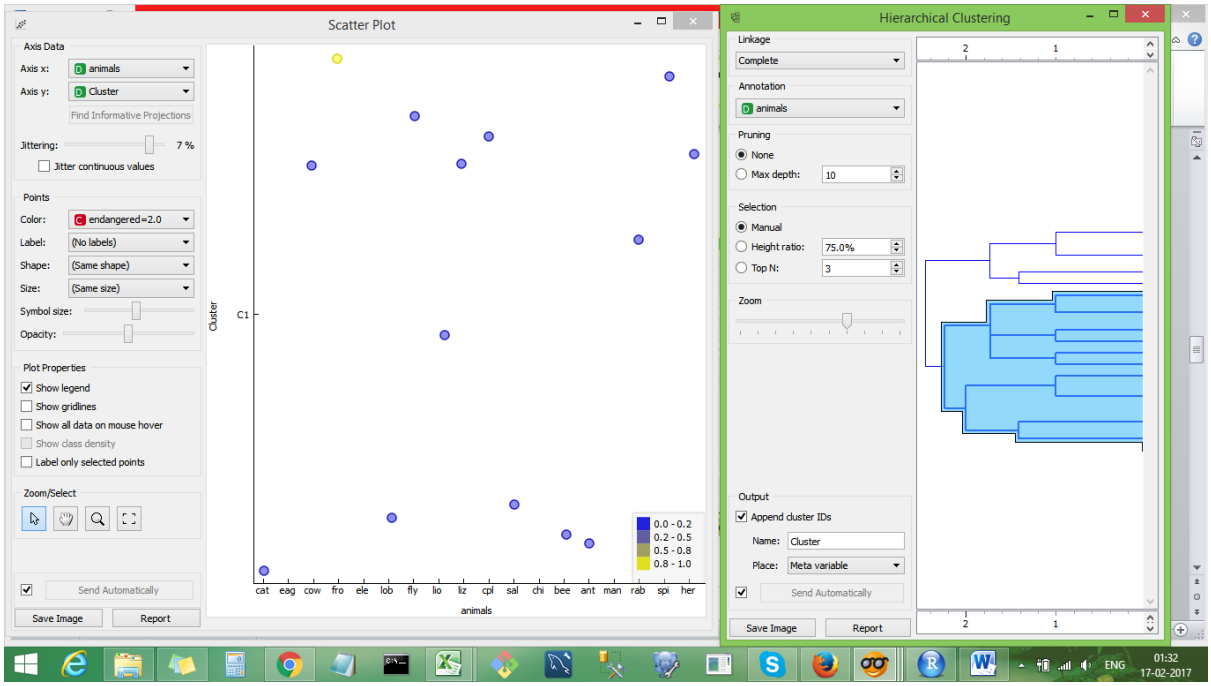
Dendogram – Average Linkage Hierarchal Cluster



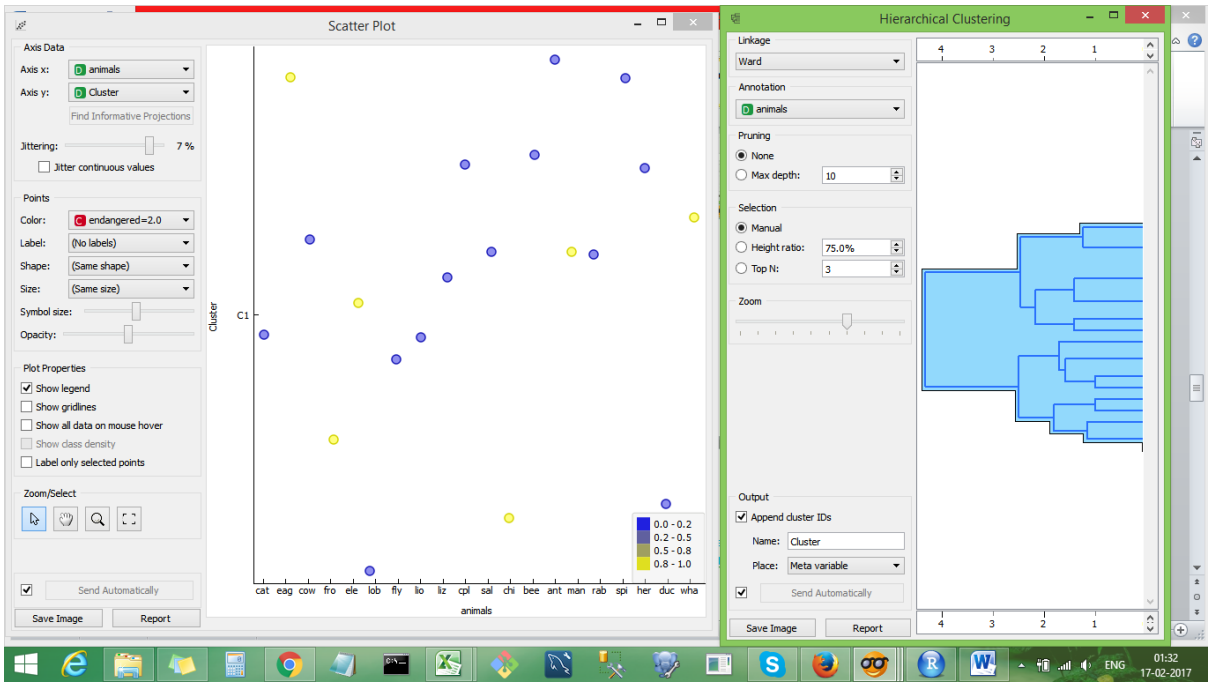
Dendogram- Weighted Linkage Hierarchal Cluster



Dendogram-Completed Linkage Hierarchal Cluster

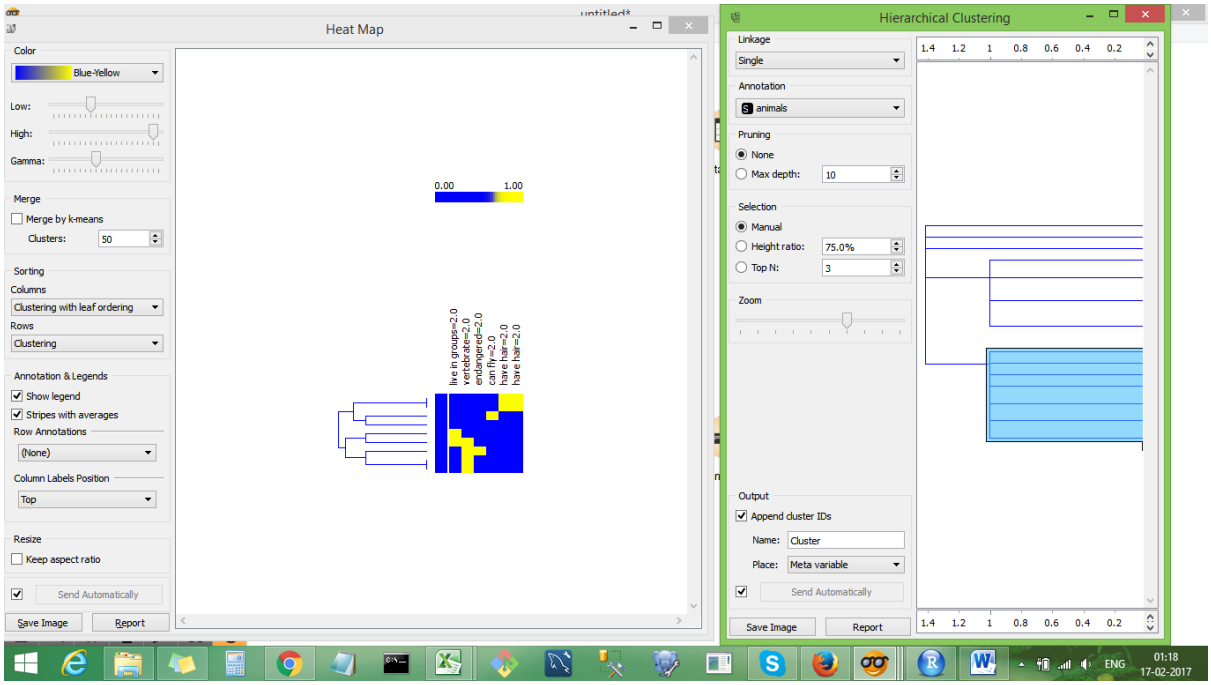


Dendogram- Ward Linkage Hierarchal Cluster

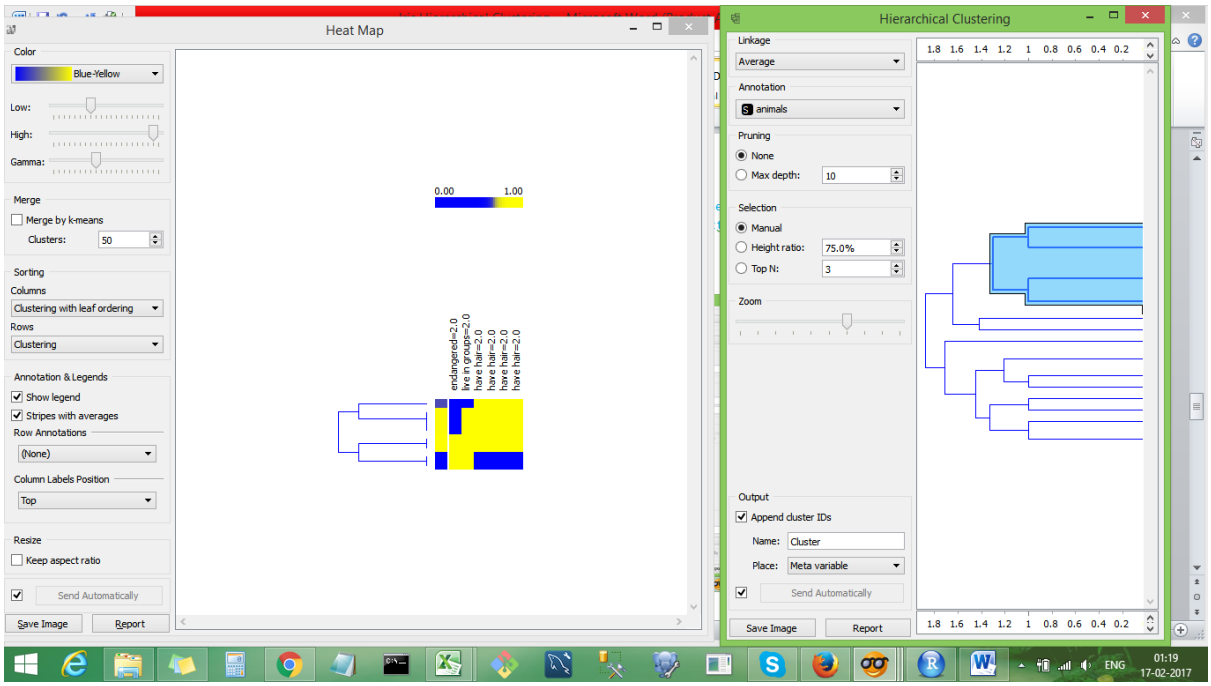


We can use Heat Maps widget to enhance visual representation of data. We are taking higher value of gamma for clearer clustering.

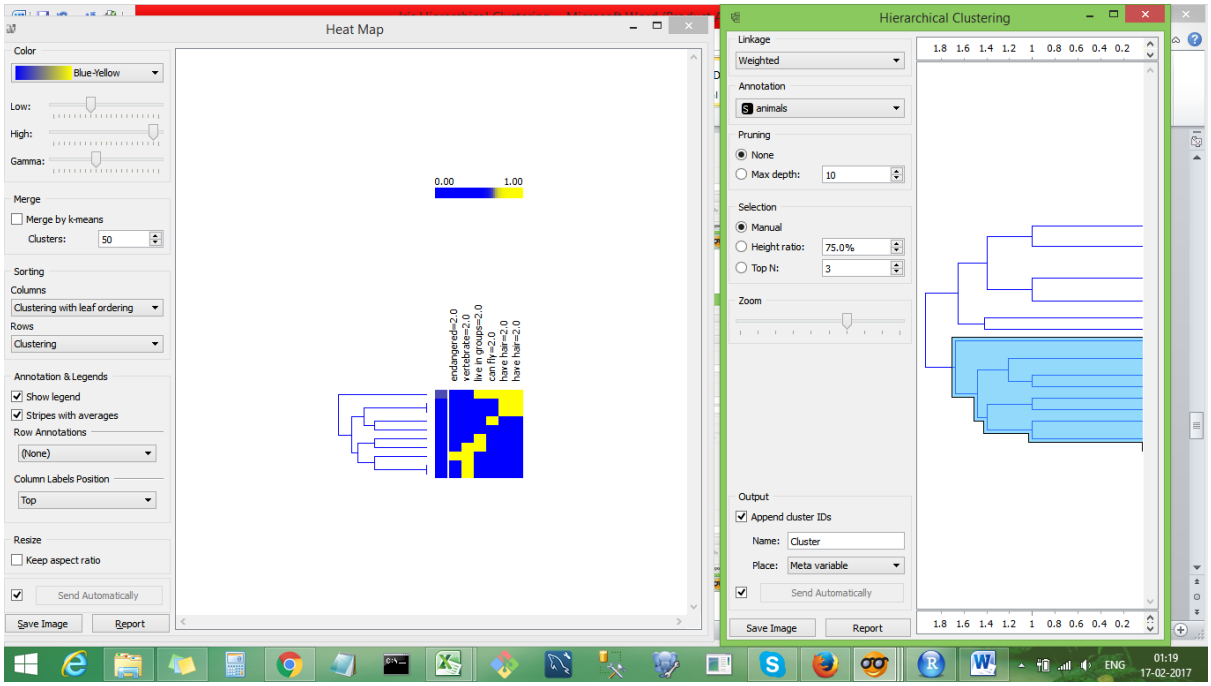
Single Linkage Hierarchal Cluster Plot



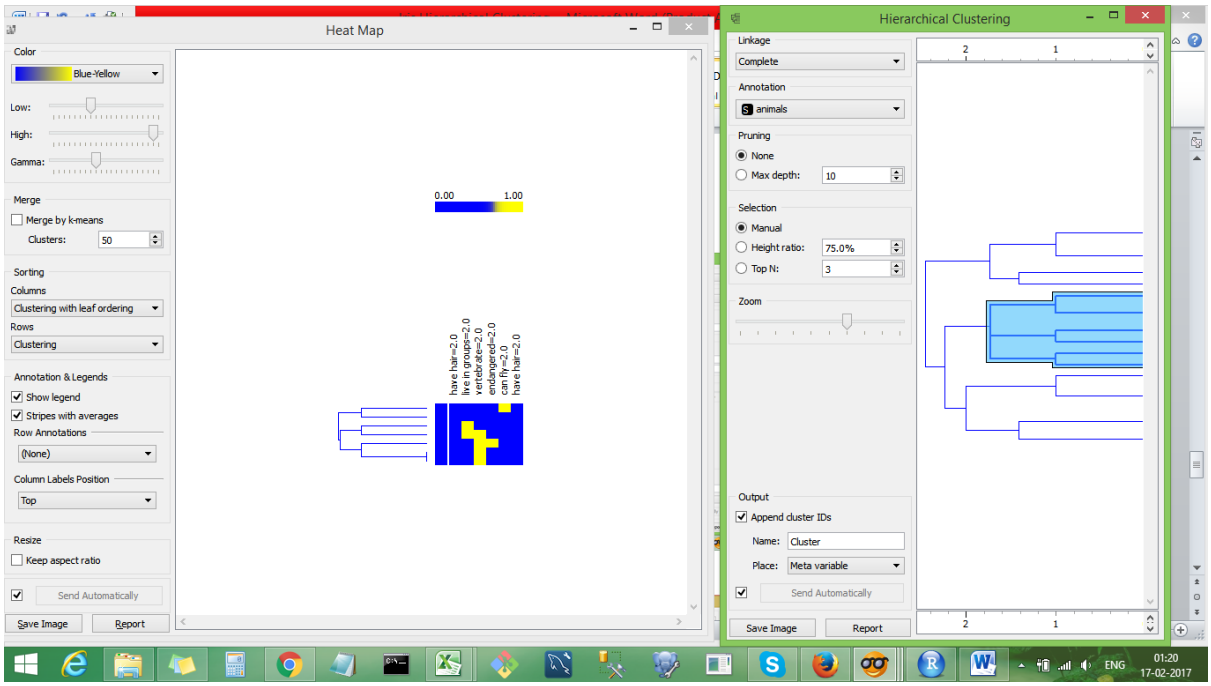
Average Linkage Hierarchal Cluster Plot



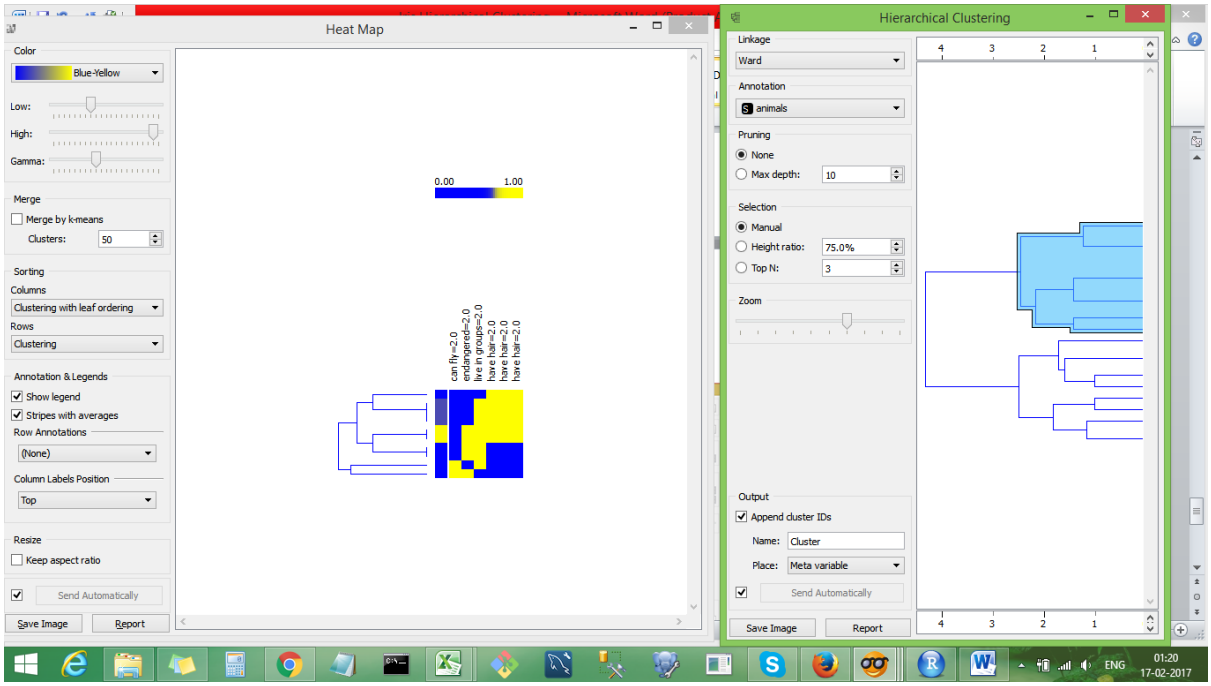
Weighted Linkage Hierarchal Cluster Plot



Complete Linkage Hierarchal Cluster Plot



Ward Linkage Hierarchal Cluster Plot



Conclusion :

The plots viewed on each platforms (R-studio and Orange) show that behaviour of the different linkage types in Hierarchal Clustering against the selected data from their respective dendograms remain same. Additionally the Heat Maps add flavour to the visual representation of the clustered data.