Homework 4: Visualizing Network and Hierarchical Data

This is an individual assignment. You are welcome to discuss the assignment with your colleagues, but the work you turn in must be your own.

The purpose of this assignment is to visualize network and hierarchical data using R. Submit the R graphics in one PDF document and submit the R scripts using the RMarkdown template provided.

1. With the network data provided (i.e., the email datasets), create three different types of visualizations using R. At least one of the three visualizations should show the nodes and edges. Submit the data, the visualizations, a short write-up of what you needed to do to create the visualization, and a description of each visualization. Follow the proper design techniques (e.g., show/hide the legend, filter to the leaf nodes) that we have gone over in class. (90 points)

   Data (source: http://snap.stanford.edu/data/) can be downloaded from Canvas.

2. With the hierarchical data provided (i.e., the Colorado plants dataset), create three different types of visualizations using R. Submit the data, the visualizations, a short write-up of what you needed to do to create the visualization, and a description of each visualization. Follow the proper design techniques (e.g., show/hide the legend, filter to the leaf nodes) that we have gone over in class. (90 points)

   Data (source: https://plants.sc.egov.usda.gov/download.html) can be downloaded from Canvas.