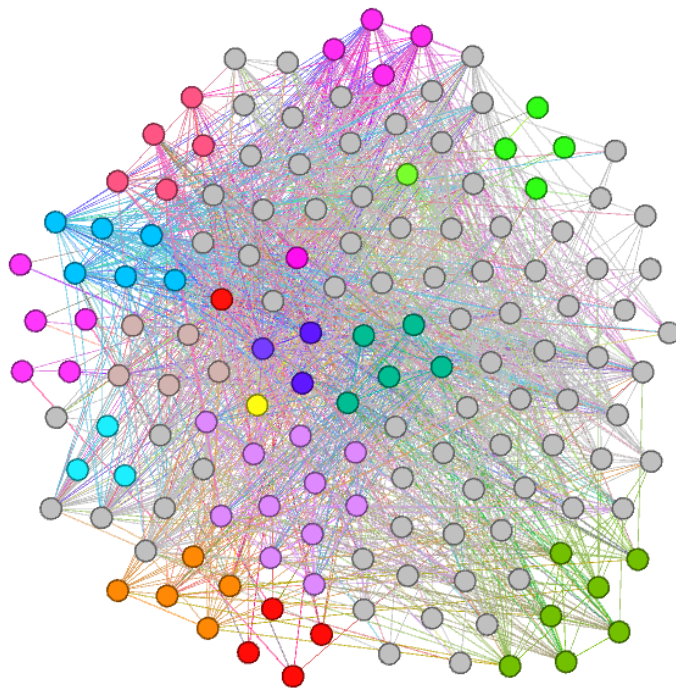## Social Network Analysis – Fall 2021
Assignment 1

1.____Download a Social Network Data from the links given below.
Make sure the dataset you use is unique to you.
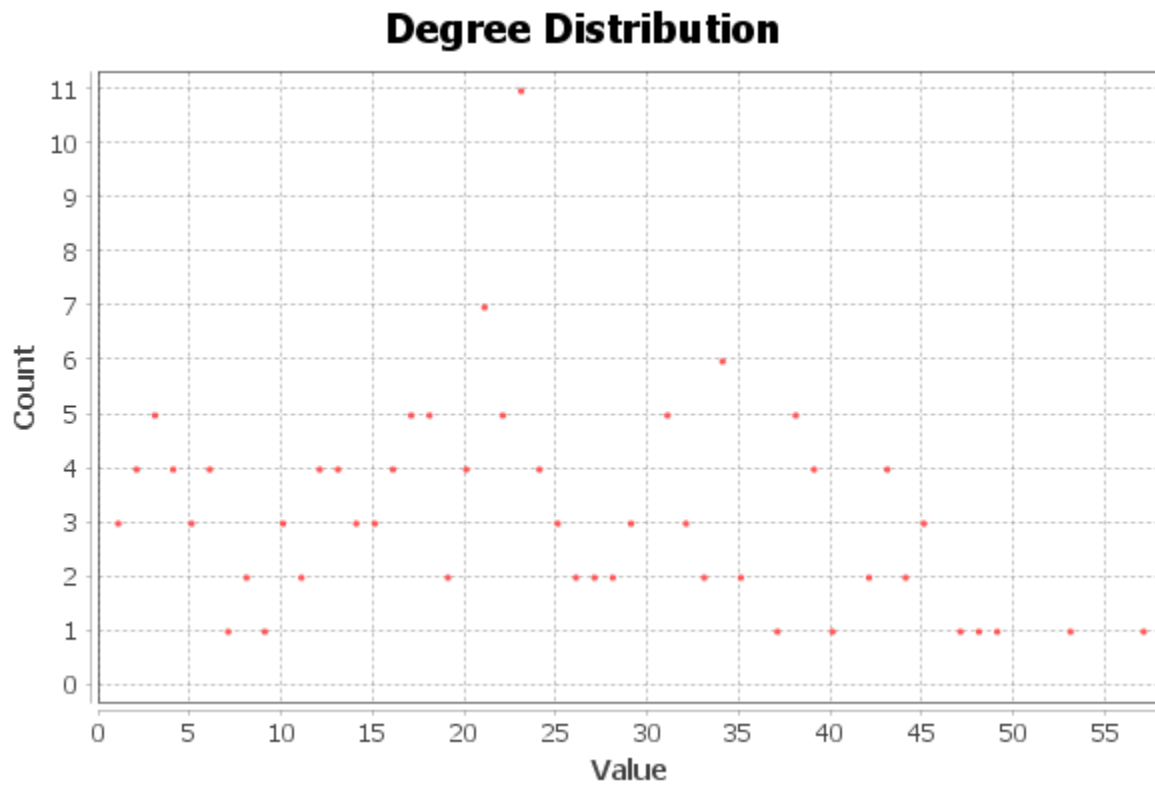
Dataset: Social Circles: Facebook
Link: https://snap.stanford.edu/data/ego-Facebook.html

2.____Visualize the graph in an effective way.
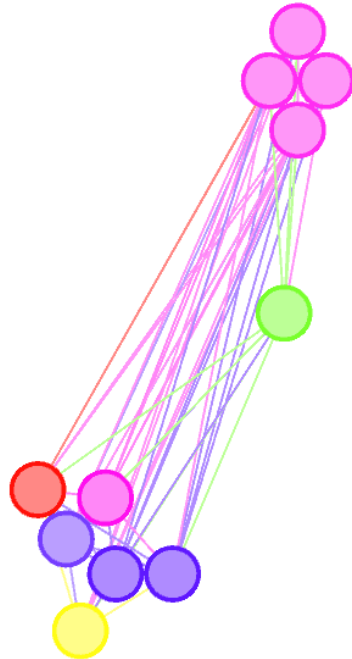

Expansion Layout

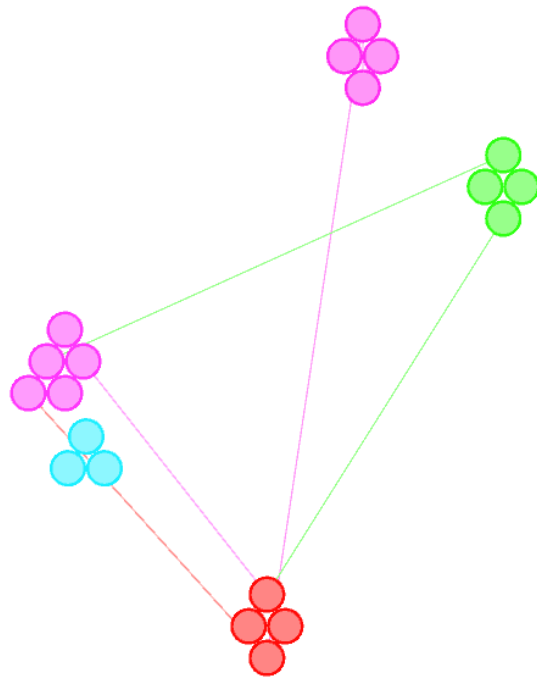3.   Plot the total degree distribution.

Degree Distribution

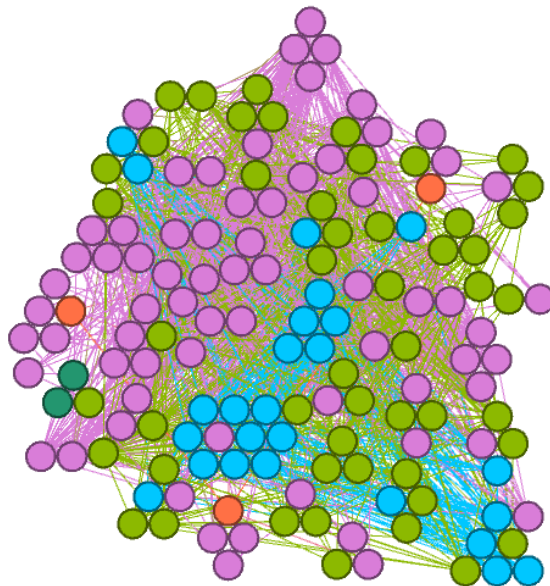i.   Assign sizes to vertices based on their total degree.
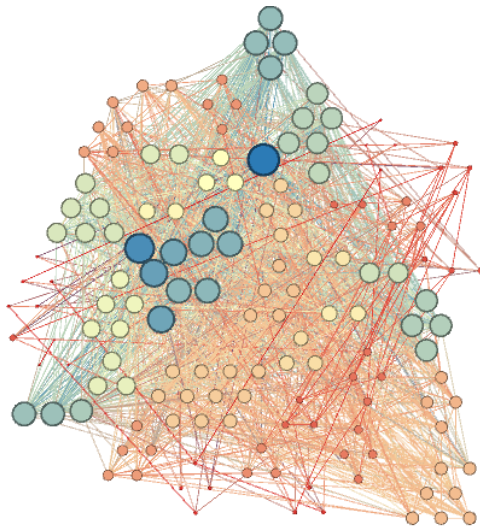
4. Filter the network by degree such that only the:
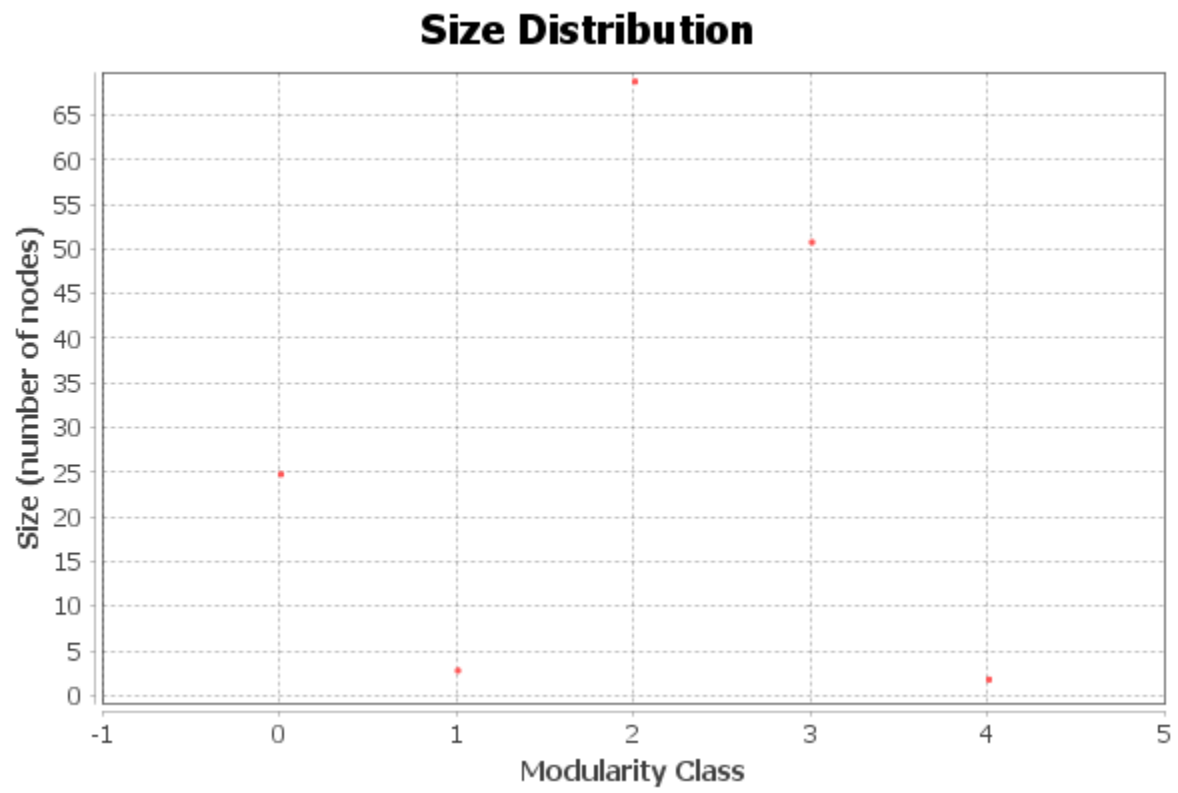i. Top 5% of nodes and the connections among them are visible

ii.   Bottom 10% of nodes and the connection among them are visible.

5.   Identify the communities in the network.

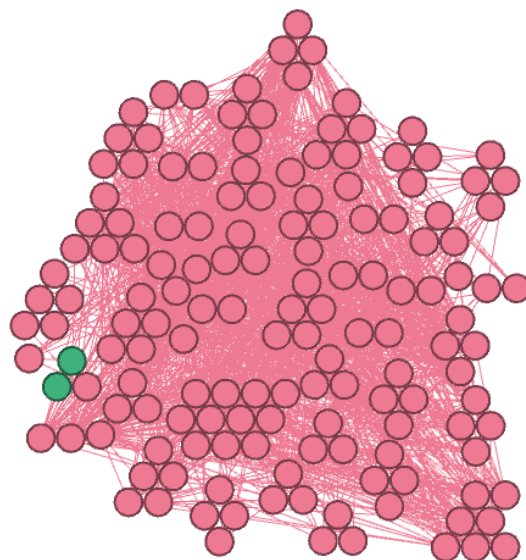i.   Assign colours to each community such that vertices in the same community have the same colour.

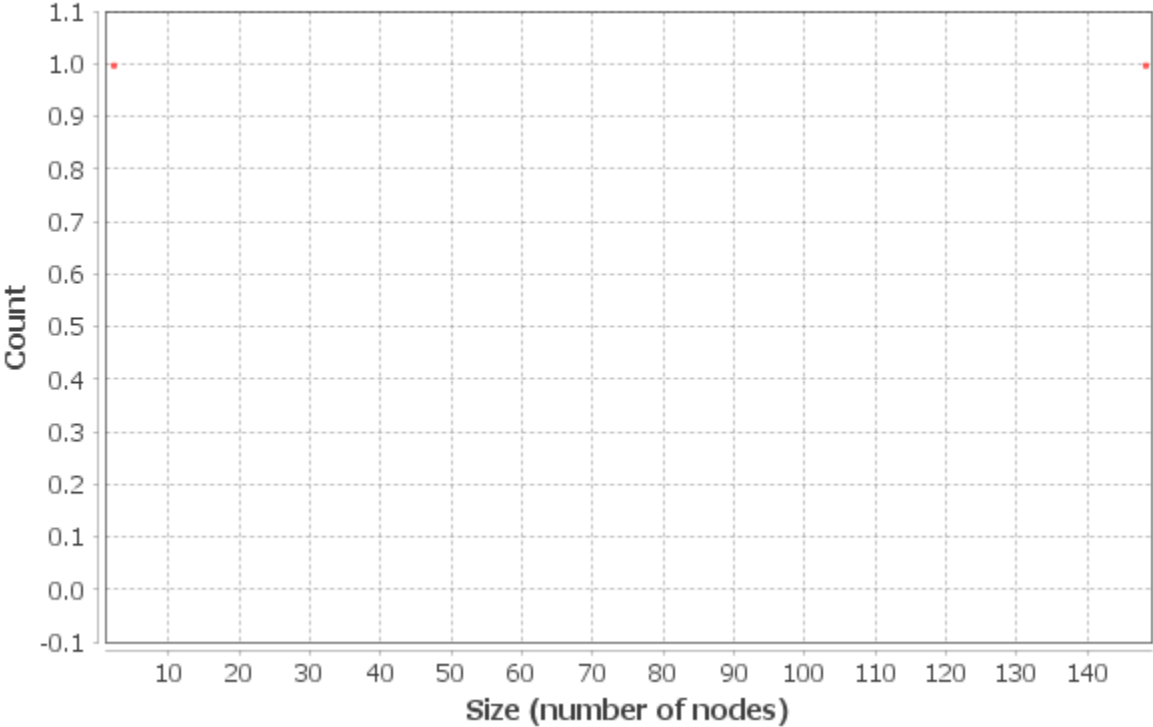ii.   Find the modularity value for the given set of communities.

Size Distribution

6.

Find

i.   All the connected components of the network -2

Size Distribution

ii.   The size of the giant component of the network
148 nodes