

CSCI 552 (Spring 2022)

Project #2

Handout: Thursday, March 3, 2022

Due: 11:59 pm, Thursday, March 24, 2022

Total points: 60

In this project, you will generate several different types of graph visualizations for the undirected graph defined by the following adjacency matrix.

	1	2	3	4	5	6	7	8	9	10
1	0	0	1	0	0	1	1	0	0	0
2	0	0	1	0	0	1	0	1	1	0
3	1	1	0	0	0	0	0	0	0	1
4	0	0	0	0	1	0	1	0	1	0
5	0	0	0	1	0	0	0	1	0	0
6	1	1	0	0	0	0	0	0	1	1
7	1	0	0	1	0	0	0	1	0	0
8	0	1	0	0	1	0	1	0	0	0
9	0	1	0	1	0	1	0	0	0	0
10	0	0	1	0	0	1	0	0	0	0

1. Try to manually draw a node-link graph, i.e. generating a layout manually for an aesthetically pleasing graph drawing. You should try to avoid too many edge crossings and clutters.
2. Use D3's force-directed layout function to visualize this graph. You may use your manually placed node locations as the starting positions. Users should be able to pick and drag nodes interactively.
3. Draw an Arc Diagram of this graph using D3. Again, carefully order your nodes on the axis to avoid too many edge crossings and long edges.
4. Draw a Radial Network Diagram of this graph using D3. You may apply the same order as in the Arc Diagram to place the nodes on a circle.