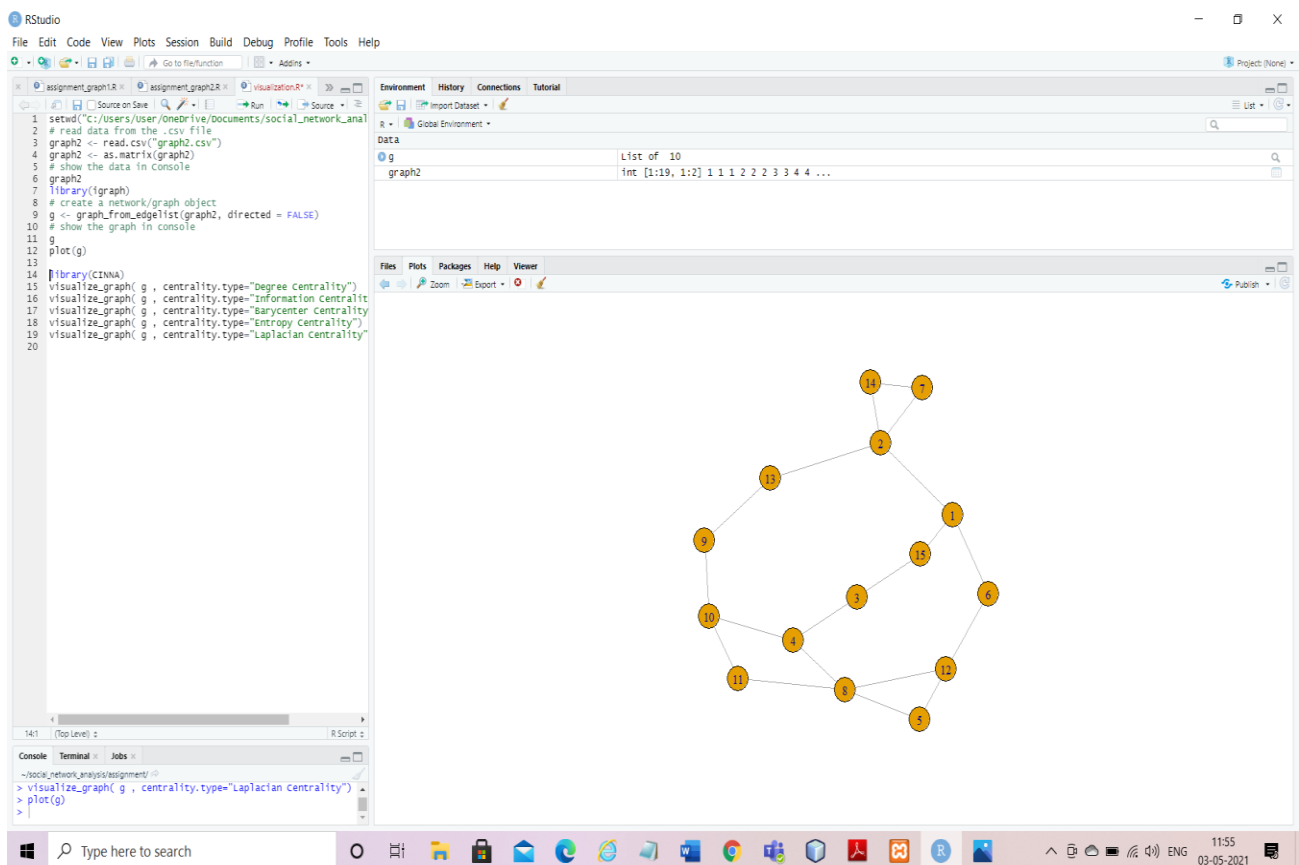


Centrality Visualization

Deepthi V

Graph:



Code:

```
setwd("C:/Users/User/OneDrive/Documents/social_network_analysis/assignment")
```

```
# read data from the .csv file
```

```
graph2 <- read.csv("graph2.csv")
```

```
graph2 <- as.matrix(graph2)

# show the data in Console

graph2

library(igraph)

# create a network/graph object

g <- graph_from_edgelist(graph2, directed = FALSE)

# show the graph in console

g

plot(g)

library(CINNA)

visualize_graph( g , centrality.type="Degree Centrality")

visualize_graph( g , centrality.type="Information Centrality")

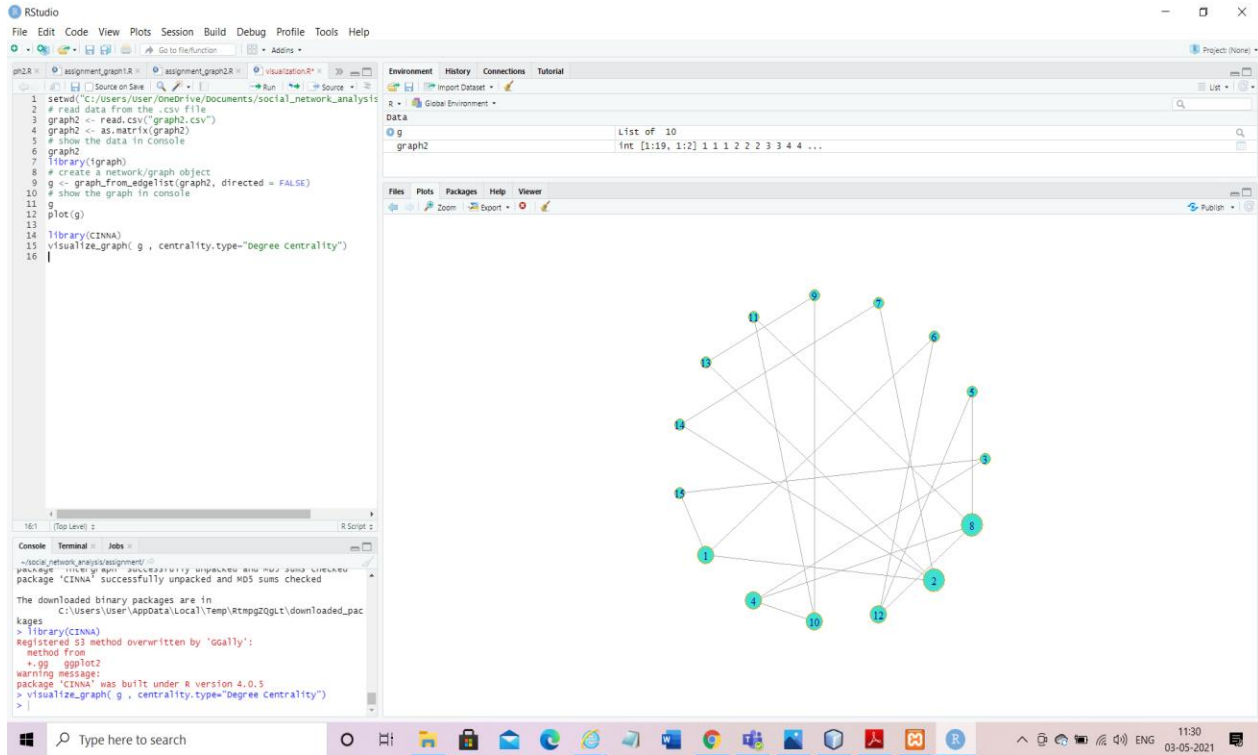
visualize_graph( g , centrality.type="Barycenter Centrality")

visualize_graph( g , centrality.type="Entropy Centrality")

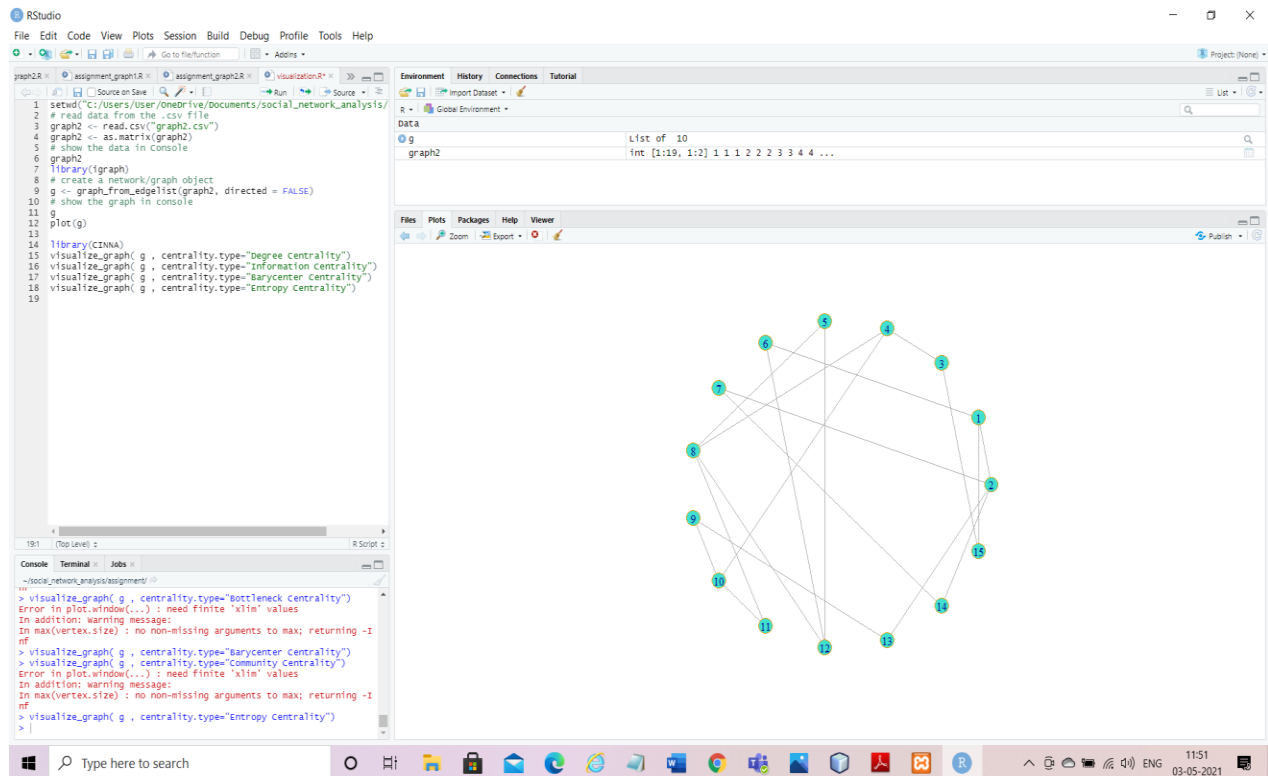
visualize_graph( g , centrality.type="Laplacian Centrality")
```

Output:

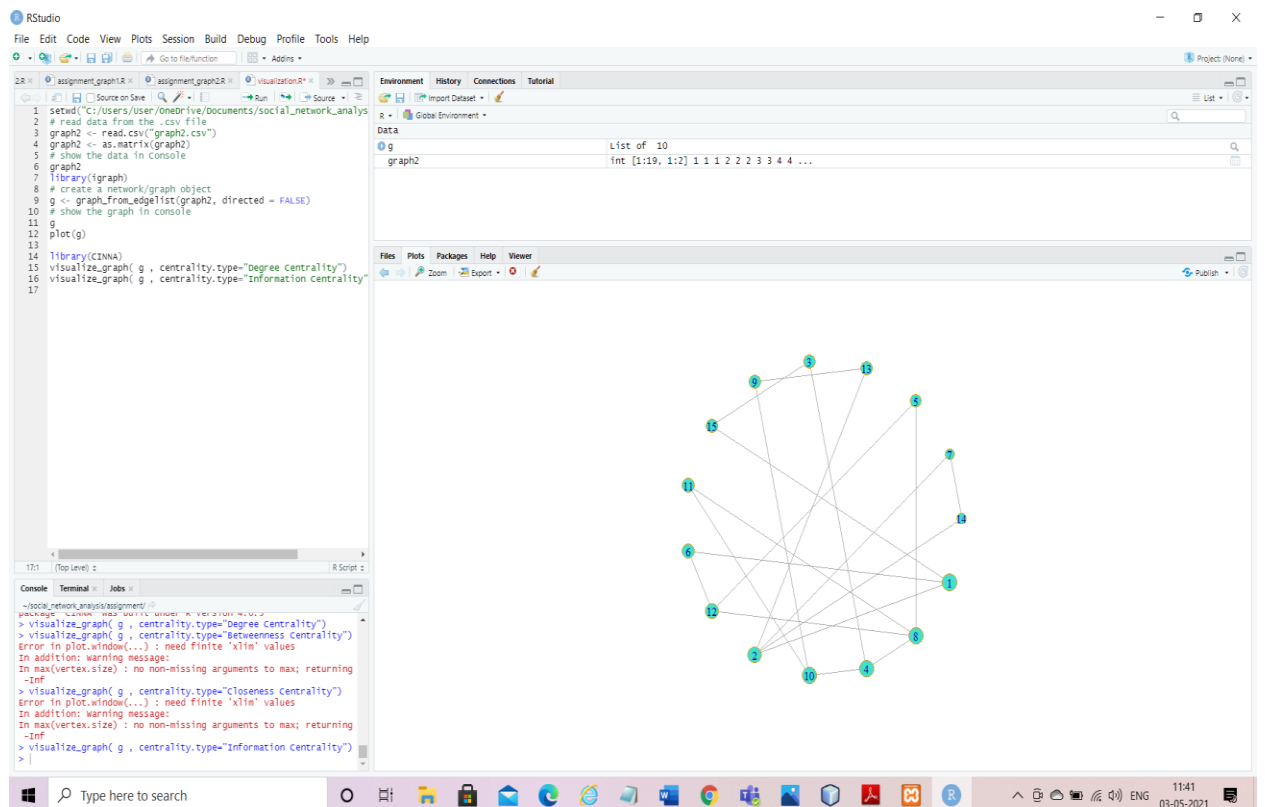
Degree centrality:



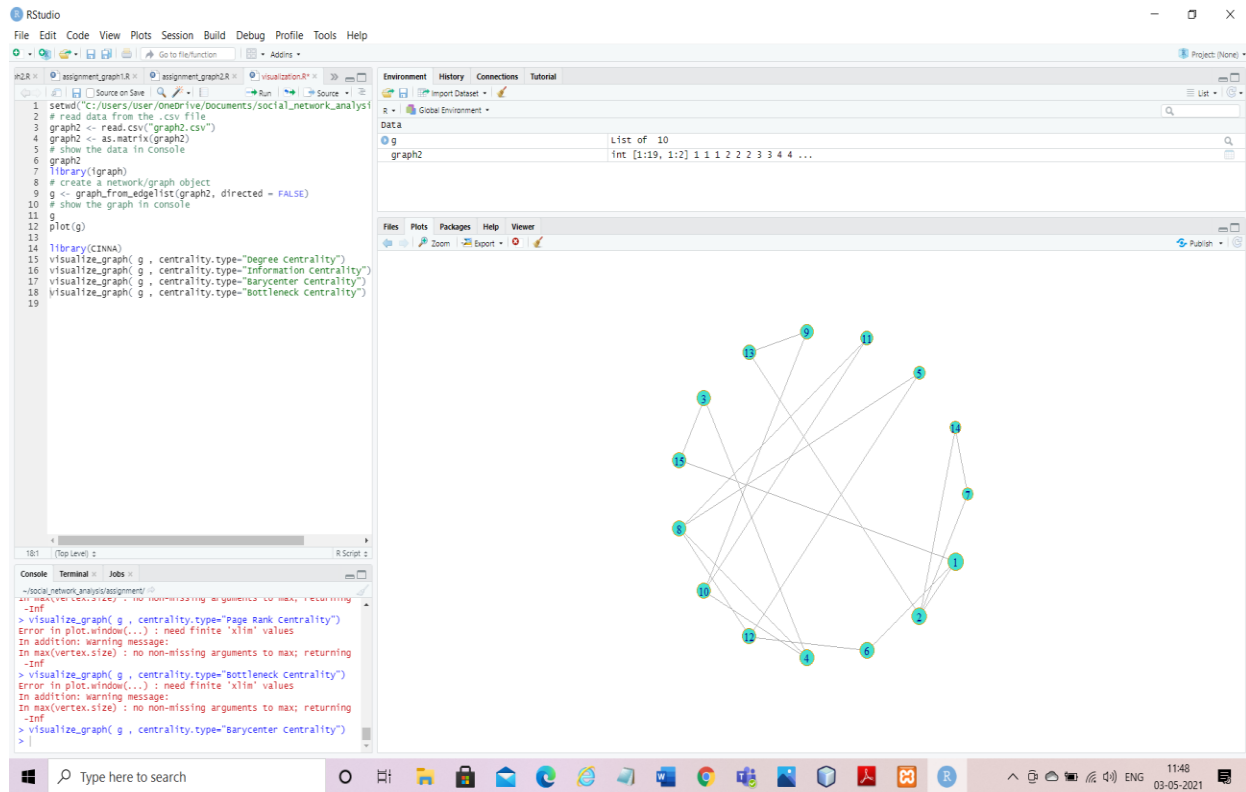
Entropy Centrality:



Information Centrality:



Barycenter Centrality:



Laplacian Centrality:

RStudio

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assignment_graph1.R x assignment_graph2.R x visualization.R x

```
1 setwd("C:/Users/user/OneDrive/Documents/social_network_ana")
2 # read data from the .csv file
3 graph2 <- read.csv("graph2.csv")
4 graph2 <- as.matrix(graph2)
5 # show the data in console
6 graph2
7 library(igraph)
8 # create a network/graph object
9 g <- graph_from_edgelist(graph2, directed = FALSE)
10 # show the graph in console
11 g
12 plot(g)
13
14 library(CINNA)
15 visualize_graph(g, centrality.type="Degree Centrality")
16 visualize_graph(g, centrality.type="Information Centrality")
17 visualize_graph(g, centrality.type="Barycenter Centrality")
18 visualize_graph(g, centrality.type="Entropy Centrality")
19 visualize_graph(g, centrality.type="Laplacian Centrality")
20
```

Environment History Connections Tutorial

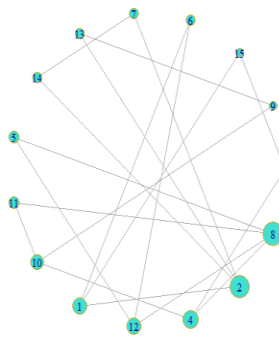
R Global Environment

Data

g	List of 10
graph2	int [1:19, 1:2] 1 1 2 2 2 3 3 4 4 ...

Files Plots Packages Help Viewer

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Console Terminal Jobs

```
--social_network_analysis\assignment2
> visualize_graph(g, centrality.type="Entropy Centrality")
> visualize_graph(g, centrality.type="Laplacian Centrality")
>
```

Type here to search

11:54 03-05-2021