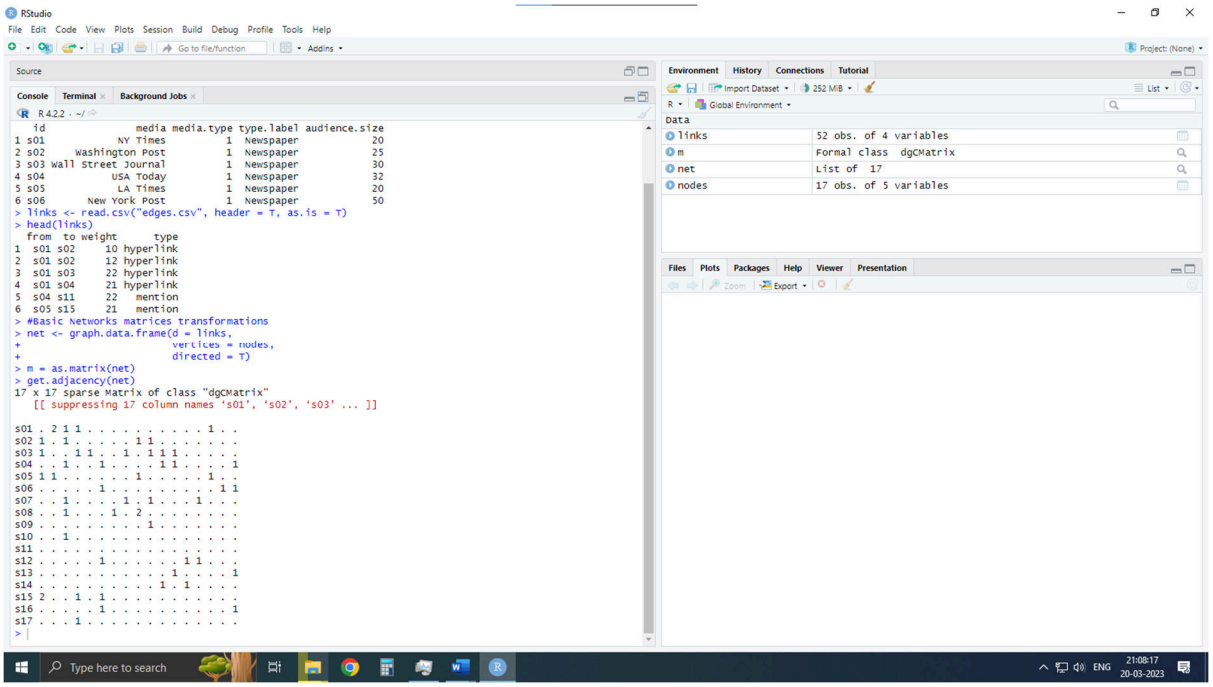
Practical 2: Perform following tasks: (i) View data collection forms and/or import onemode/two-mode datasets; (ii) Basic Networks matrices transformations

Code:

```
# Get the current working directory
getwd()

# Set the working directory to "d:/SNA_pract"
setwd("d:/SNA_pract")

# Read the nodes.csv file into a data frame 'nodes'
nodes <- read.csv("nodes.csv", header = T, , as.is = T)

# Print the first few rows of 'nodes'
head(nodes)

# Read the edges.csv file into a data frame 'links'
links <- read.csv("edges.csv", header = T, as.is = T)

# Print the first few rows of 'links'
head(links)

# Create a graph object 'net' from the data frames 'nodes' and 'links'
net <- graph.data.frame(d = links,
                        vertices = nodes,
                        directed = T)

# Convert the graph object 'net' to an adjacency matrix 'm'
m = as.matrix(net)

# Print the adjacency matrix of 'net'
get.adjacency(net)

# Plot the graph object 'net'
plot(net)
```

OUTPUT


RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Source
Console Terminal Background Jobs
R 4.2.2 · ~/
id media media.type type.label audience.size
1 s01 NY Times 1 Newspaper 20
2 s02 Washington Post 1 Newspaper 25
3 s03 Wall Street Journal 1 Newspaper 30
4 s04 USA Today 1 Newspaper 32
5 s05 LA Times 1 Newspaper 20
6 s06 New York Post 1 Newspaper 50
> links <- read.csv("edges.csv", header = T, as.is = T)
> head(links)
from to weight type
1 s01 s02 10 hyperlink
2 s01 s02 12 hyperlink
3 s01 s03 22 hyperlink
4 s01 s04 21 hyperlink
5 s04 s11 22 mention
6 s05 s15 21 mention
> #Basic Networks matrices transformations
> net <- graph.data.frame(d = links,
+ vertices = nodes,
+ directed = T)
> m = as.matrix(net)
> get.adjacency(net)
17 x 17 sparse Matrix of class "dgCMatrix"
[[suppressing 17 column names 's01', 's02', 's03' ...]]
Environment History Connections Tutorial
Import Dataset 252 MiB
Global Environment
Data
links 52 obs. of 4 variables
m Formal class dgCMatrix
net List of 17
nodes 17 obs. of 5 variables
Files Plots Packages Help Viewer Presentation
Export
Type here to search
ENG
21:08:17
20-03-2023