

BIG DATA ASSIGNMENT

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SECTION - F

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The screenshot displays the RStudio interface with the following components:

- Source Editor (Top Left):** Contains R code for creating a list object 'foo'. The code includes comments and uses `seq`, `matrix`, `list`, `factor`, and `sub` functions.


```

1 # (A)
2 foo<-list(seq(from=-4,to=4,length=20),matrix(c(F,T,T,T,F,T,T,F,F),
3                                              nrow=3,ncol=3),
4          c("don","quixote"),
5          factor(x=c("LOW","MED","LOW",
6                    "MED","MED","HIG
7 # (i)
8 foo[[2]][2:1,2:3]
9
10 # (ii)
11 foo[[3]][1]<-sub(pattern="d",replacement="D",x=foo[[3]][1])
12 foo[[3]][2]<-sub(pattern="q",replacement="Q",x=foo[[3]][2])
13

```
- Console (Bottom Left):** Shows the execution of the code from the source editor. The output for `foo[[2]][2:1,2:3]` is displayed as a matrix.


```

> # (A)
> foo<-list(seq(from=-4,to=4,length=20),matrix(c(F,T,T,T,F,T,T,F,F),
+                                              nrow=3,ncol=3),
+          c("don","quixote"),
+          factor(x=c("LOW","MED","LOW",
+                    "MED","MED","HIG
+          H"))))
> # (i)
> foo[[2]][2:1,2:3]
      [,1] [,2]
[1,] FALSE FALSE
[2,]  TRUE  TRUE
>

```
- Environment Pane (Top Right):** Lists the objects in the Global Environment: 'A', 'B', 'bar', 'foo', 'gg', 'mydata', and 'mymat'. Each entry shows its type and a preview of its data.

Object	Type	Preview
A	num [1:3, 1:3]	0.3 4.5 55.3 91 0.1 ...
B	num [1:3, 1:3]	88 1 -88 65 2 -65 -7 9...
bar	List of 2	
foo	List of 4	
gg	Large gg (9 elements, 3.5 MB)	
mydata	5 obs. of 3 variables	
mymat	num [1:4, 1:3]	1 5 100 11 3 4 20 12 4...
- Files, Plots, Packages, Help, Viewer (Bottom Right):** These panes are currently empty.

The Windows taskbar at the bottom shows the system clock as 7:58 PM on 8/14/2020, along with various application icons including RStudio, Krita, and several web browsers.

RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins Project: (None)

Untitled1* x

Source on Save Run Source

```
9
10 # (ii)
11 foo[[3]][1]<-sub(pattern="d",replacement="D",x=foo[[3]][1])
12 foo[[3]][2]<-sub(pattern="q",replacement="Q",x=foo[[3]][2])
13 cat("\nWindmills!ATTACK!\n\n\t-",foo[[3]][1],"",foo[[3]][2],"/-",sep='
14
15 # (iii)
16 foo[[1]][foo[[1]]>1]
17
18 # (iv)
19 which(x=foo[[4]]=="MED")
20
```

19:25 (Top Level) R Script

Environment History Connections Tutorial

Global Environment

Data

A	num [1:3, 1:3] 0.3 4.5 55.3 91 0.1 ...
B	num [1:3, 1:3] 88 1 -88 65 2 -65 -7 9...
bar	List of 2
foo	List of 4
gg	Large gg (9 elements, 3.5 MB)
mydata	5 obs. of 3 variables
mymat	num [1:4, 1:3] 1 5 100 11 3 4 20 12 4...

Files Plots Packages Help Viewer

Zoom Export

Console Terminal x Jobs x

```
~/
LZ, TRUE TRUE
> # (ii)
> foo[[3]][1]<-sub(pattern="d",replacement="D",x=foo[[3]][1])
> foo[[3]][2]<-sub(pattern="q",replacement="Q",x=foo[[3]][2])
> cat("\nWindmills!ATTACK!\n\n\t-",foo[[3]][1],"",foo[[3]][2],"/-",sep="")
"Windmills!ATTACK!"
      -\DonQuixote/-
> # (iii)
> foo[[1]][foo[[1]]>1]
[1] 1.052632 1.473684 1.894737 2.315789 2.736842 3.157895 3.578947
[8] 4.000000
> # (iv)
> which(x=foo[[4]]=="MED")
[1] 2 4 5
```

Windows Search Type here to search

Krita

RStudio

ENG IN 7:58 PM 8/14/2020

RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins Project: (None)

```
1 # (B)
2 bar<- list(facs=foo[[4]],nums=c(3,2.1,3.3,4,1.5,4.9),oldlist=foo[1:3])
3 # (i)
4 bar$facs[bar$nums>=3]
5 # (ii)
6 bar$flags <- rep(x=bar$oldlist[[2]][3],times=2)
7 # (iii)
8 bar$nums[!bar$flags]
9 # (iv)
10 bar$oldlist[[3]]<-"Don Quixote"
11
```

10:32 (Top Level) R Script

Console Terminal Jobs

```
> # (B)
> bar<- list(facs=foo[[4]],nums=c(3,2.1,3.3,4,1.5,4.9),oldlist=foo[1:3])
> # (i)
> bar$facs[bar$nums>=3]
[1] LOW LOW MED HIGH
Levels: HIGH LOW MED
> # (ii)
> bar$flags <- rep(x=bar$oldlist[[2]][3],times=2)
> # (iii)
> bar$nums[!bar$flags]
numeric(0)
> # (iv)
> bar$oldlist[[3]]<-"Don Quixote"
>
```

Environment History Connections Tutorial

Global Environment

Data

A	num [1:3, 1:3]	0.3 4.5 55.3 91 0.1 ...
B	num [1:3, 1:3]	88 1 -88 65 2 -65 -7 9...
bar	List of 4	
foo	List of 4	
gg	Large gg (9 elements, 3.5 MB)	
mydata	5 obs. of 3 variables	
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Files Plots Packages Help Viewer

Type here to search

Krita

RStudio

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