

Session 11

Assignment 2

Q1

The screenshot shows the RStudio interface with the following components:

- Source Editor:** Contains R code for importing and analyzing the 'bank' dataset. The code includes comments for questions A through F.
- Environment Pane:** Lists objects in the Global Environment.
- Files Pane:** Shows the file structure of the project.
- Console:** Displays the output of the R script.

R Code in Source Editor:

```
1 # Importing the bank data
2 library(readr)
3 setwd("E:\\STUDY\\Data Analytics")
4 bank<- read.table("bank-additional-full.csv", header = T, sep=";" )
5 view(bank)
6 dim(bank)
7 str(bank)
8
9
10 #A- Is there any association between job and default?
11 with(bank, chisq.test( job, default))
12 with(bank, table( job, default) )
13 with(bank, prop.table(table( job,default)))
14 #ANS - There is no association between job and default
15
16
17 #B- Is there any significant difference in duration of last call between? people hav
18 #getOption("max.print")
19 with(bank, chisq.test(duration,housing))
20 with(bank, table( duration,housing) )
21
22 #C- Is there any association between consumer price index and consumer?
23 chisq.test(bank$cons.price.idx,bank$cons.conf.idx)
24 #They are dependent on each other
25
26 #D- Is the employment variation rate consistent across Job types?
27 chisq.test(bank$job,bank$emp.var.rate)
28
29
30 #e. Is the employment variation rate same across Education?
31 with(bank, chisq.test( education,emp.var.rate))
32 with(bank, table( education, emp.var.rate) )
33
34 # f. which group is more confident?
35
36
37 library(readr)
```

Environment Pane:

Object	Value
bank	41188 obs. of 21 variables
bnkData	41188 obs. of 21 variables
d	List of 2
list_data	List of 3
list.xy	List of 2
mat	num [1:3, 1:3] 1 0 0 4 5 0 7 8 9
my_df	10 obs. of 11 variables
mv_list	List of 3

Files Pane:

Name	Description	Version
abind	Combine Multidimensional Arrays	1.4-5
acepack	ACE and AVAS for Selecting Multiple Regression Transformations	1.4.1
askpass	Safe Password Entry for R, Git, and SSH	1.1
assertthat	Easy Pre and Post Assertions	0.2.1
backports	Reimplementations of Functions Introduced Since R-3.0.0	1.1.4
base64enc	Tools for base64 encoding	0.1-3
BH	Boost C++ Header Files	1.69.0-1
binneR	Spectral Processing for High Resolution Flow Infusion Mass Spectrometry	2.0.11
broom	Convert Statistical Analysis Objects into Tidy Tibbles	0.5.2
car	Companion to Applied Regression	3.0-3
carData	Companion to Applied Regression Data Sets	3.0-2
cellranger	Translate Spreadsheet Cell Ranges to Rows and Columns	1.1.0
checkmate	Fast and Versatile Argument Checks	1.9.3
cli	Helpers for Developing Command Line Interfaces	1.1.0
clire	Read and Write from the System Clipboard	0.6.0

Console:

```
3:35 (Top Level) R Script
```

RStudio interface showing a script editor with R code, a console, and an environment pane.

```
8  
9  
10 #A- Is there any association between job and default?  
11 with(bank, chisq.test( job, default))  
12 with(bank, table( job, default) )  
13 with(bank, prop.table(table( job,default)))  
14 #ANS - There is no association between job and default  
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16  
17 #B- Is there any significant difference in duration of last call between? people hav  
18 #getoption("max.print")  
19 with(bank, chisq.test(duration,housing))  
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22 #C- Is there any association between consumer price index and consumer?  
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24 #They are dependent on each other  
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26 #D- Is the employment variation rate consistent across job types?  
27 chisq.test(bank$job,bank$emp.var.rate)  
28  
29  
30 #E. Is the employment variation rate same across Education?  
31 with(bank, chisq.test( education,emp.var.rate))  
32 with(bank, table( education, emp.var.rate) )  
33  
34 # F. Which group is more confident?  
35  
36 library(psych)  
37 pairs.panels(bank[,1:6])  
38 pairs.panels(bank[,1:9])  
39 summary(bank)  
40  
41 library(psych)  
42 pairs.panels(bank[,1:14])
```

Environment pane:

- Global Environment
 - bank: 41188 obs. of 21 variables
 - bnkData: 41188 obs. of 21 variables
 - d: List of 2
 - list_data: List of 3
 - list.xy: List of 2
 - mat: num [1:3, 1:3] 1 0 0 4 5 0 7 8 9
 - my_df: 10 obs. of 11 variables
 - my_list: List of 3
- User Library
 - abind: Combine Multidimensional Arrays 1.4-5
 - acepack: ACE and AVAS for Selecting Multiple Regression Transformations 1.4.1
 - askpass: Safe Password Entry for R, Git, and SSH 1.1
 - assertthat: Easy Pre and Post Assertions 0.2.1
 - backports: Reimplementations of Functions Introduced Since R-3.0.0 1.1.4
 - base64enc: Tools for base64 encoding 0.1-3
 - BH: Boost C++ Header Files 1.69.0-1
 - binneR: Spectral Processing for High Resolution Flow Infusion Mass Spectrometry 2.0.11
 - broom: Convert Statistical Analysis Objects into Tidy Tibbles 0.5.2
 - car: Companion to Applied Regression 3.0-3
 - carData: Companion to Applied Regression Data Sets 3.0-2
 - cellranger: Translate Spreadsheet Cell Ranges to Rows and Columns 1.1.0
 - checkmate: Fast and Versatile Argument Checks 1.9.3
 - cli: Helpers for Developing Command Line Interfaces 1.1.0
 - cli: Read and Write from the System Clipboard 0.6.0

RStudio interface showing a data frame view of the 'bank' dataset, a console, and an environment pane.

Environment pane:

- Global Environment
 - bank: 41188 obs. of 21 variables
 - bnkData: 41188 obs. of 21 variables
 - d: List of 2
 - list_data: List of 3
 - list.xy: List of 2
 - mat: num [1:3, 1:3] 1 0 0 4 5 0 7 8 9
 - my_df: 10 obs. of 11 variables
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