ACADGILD

SESSION 3: FOUNDATIONAL R PROGRAMMING

Assignment 3

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1. Introduction

This assignment will help you understand the concepts learnt in the session.

2. Objective

This assignment will test your skills on Operations on Data Structures in R.

3. Prerequisites

Not applicable.

4. Associated Data Files

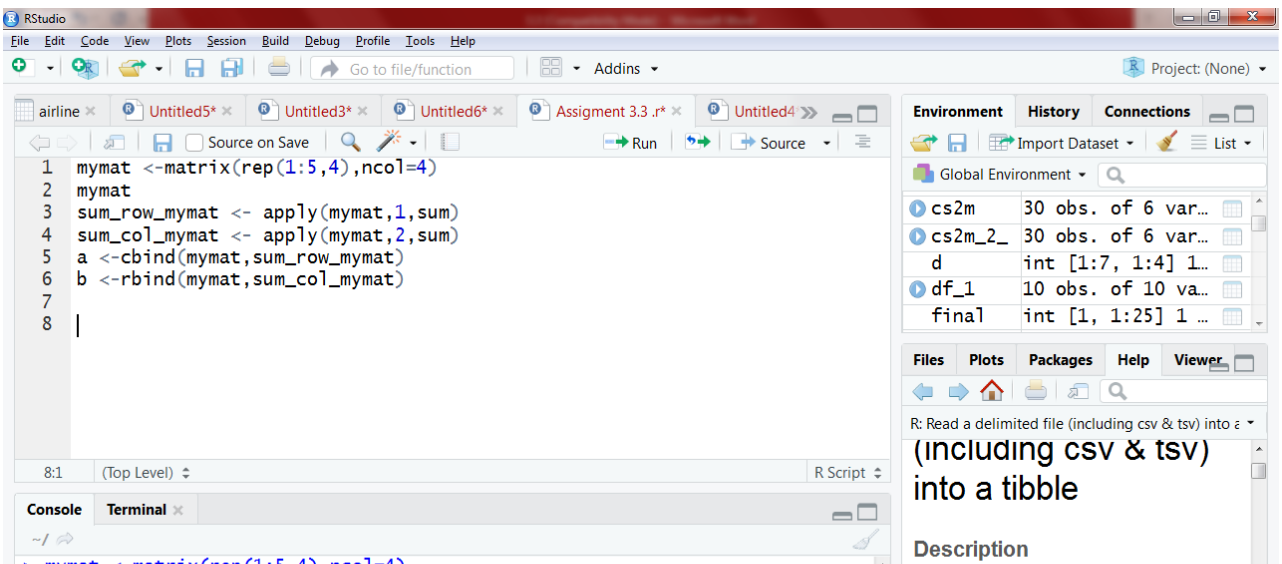
Not applicable.

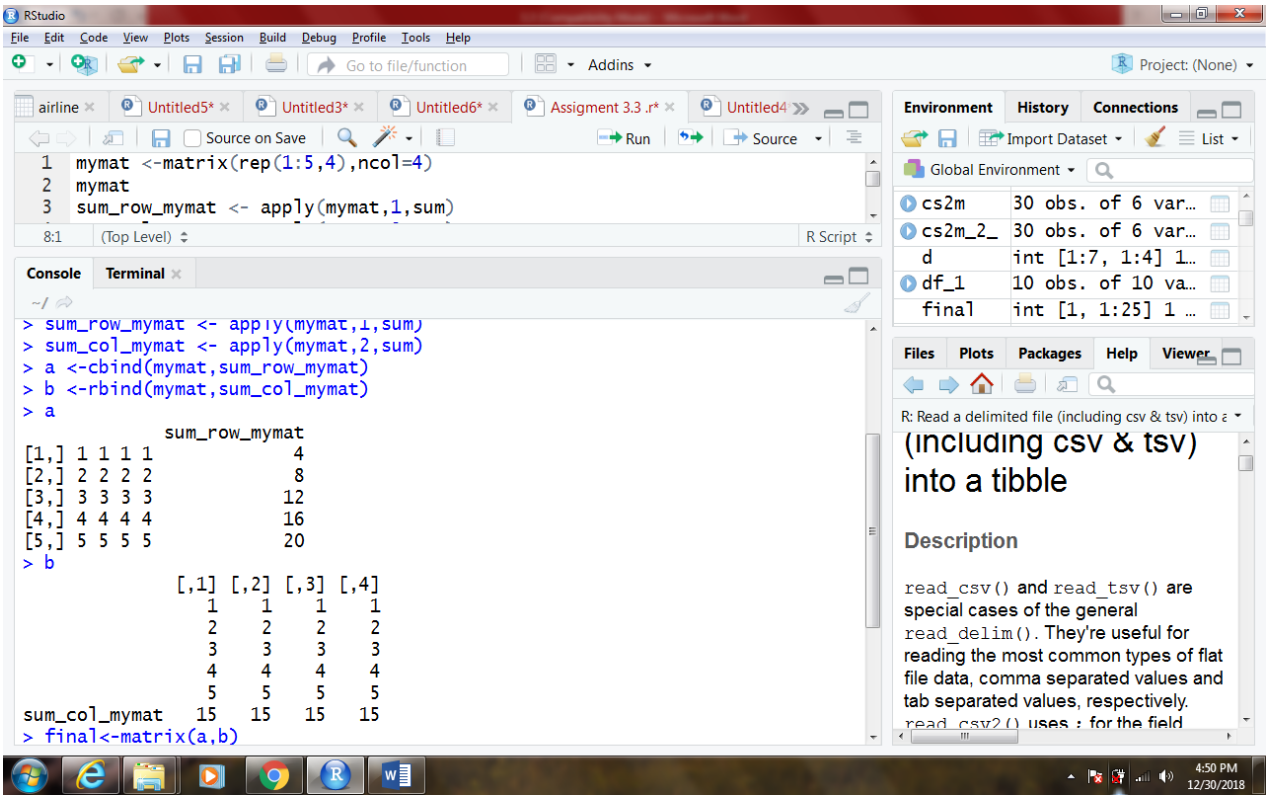
5. Problem Statement

1. Define matrix mymat by replicating the sequence 1:5 for 4 times and transforming into a matrix, sum over rows and columns.

```
mymat <-matrix(rep(1:5,4),ncol=4)
mymat

sum_row_mymat <- apply(mymat,1,sum)

sum_col_mymat <- apply(mymat,2,sum)

a <-cbind(mymat,sum_row_mymat)

b <-rbind(mymat,sum_col_mymat)
```

r screen




RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Addins
Project: (None)
airline
Untitled5*
Untitled3*
Untitled6*
Assigment 3.3 .r*
Untitled4
Source on Save
Run
Source
1 mymat <-matrix(rep(1:5,4),ncol=4)
2 mymat
3 sum_row_mymat <- apply(mymat,1,sum)
8:1
(Top Level)
R Script
Console
Terminal
~/
> sum_row_mymat <- apply(mymat,1,sum)
> sum_col_mymat <- apply(mymat,2,sum)
> a <-cbind(mymat,sum_row_mymat)
> b <-rbind(mymat,sum_col_mymat)
> a
sum_row_mymat
[1,] 1 1 1 1 4
[2,] 2 2 2 2 8
[3,] 3 3 3 3 12
[4,] 4 4 4 4 16
[5,] 5 5 5 5 20
> b
[,1] [,2] [,3] [,4]
1 1 1 1
2 2 2 2
3 3 3 3
4 4 4 4
5 5 5 5
sum_col_mymat 15 15 15 15
> final<-matrix(a,b)
Environment
History
Connections
Import Dataset
List
Global Environment
cs2m 30 obs. of 6 var...
cs2m_2_ 30 obs. of 6 var...
d int [1:7, 1:4] 1...
df_1 10 obs. of 10 va...
final int [1, 1:25] 1 ...
Files
Plots
Packages
Help
Viewer
R: Read a delimited file (including csv & tsv) into a
(including csv & tsv)
into a tibble
Description
read_csv() and read_tsv() are special cases of the general read_delim(). They're useful for reading the most common types of flat file data, comma separated values and tab separated values, respectively.
read_csv2() uses ; for the field
4:50 PM
12/30/2018

6. Expected Format

1. R file should be submitted where applicable.

2. R file should be in PDF or in .r format
3. Proper screenshots of the outputs should be submitted as well
4. The r codes, if submitted in any other format, will be subjected to deduction in marks

Note: Your solution will not be entertained if it is any other format, e.g., .zip, .doc, .rtf etc.

7. Approximate Time to Complete Task

30 mins.