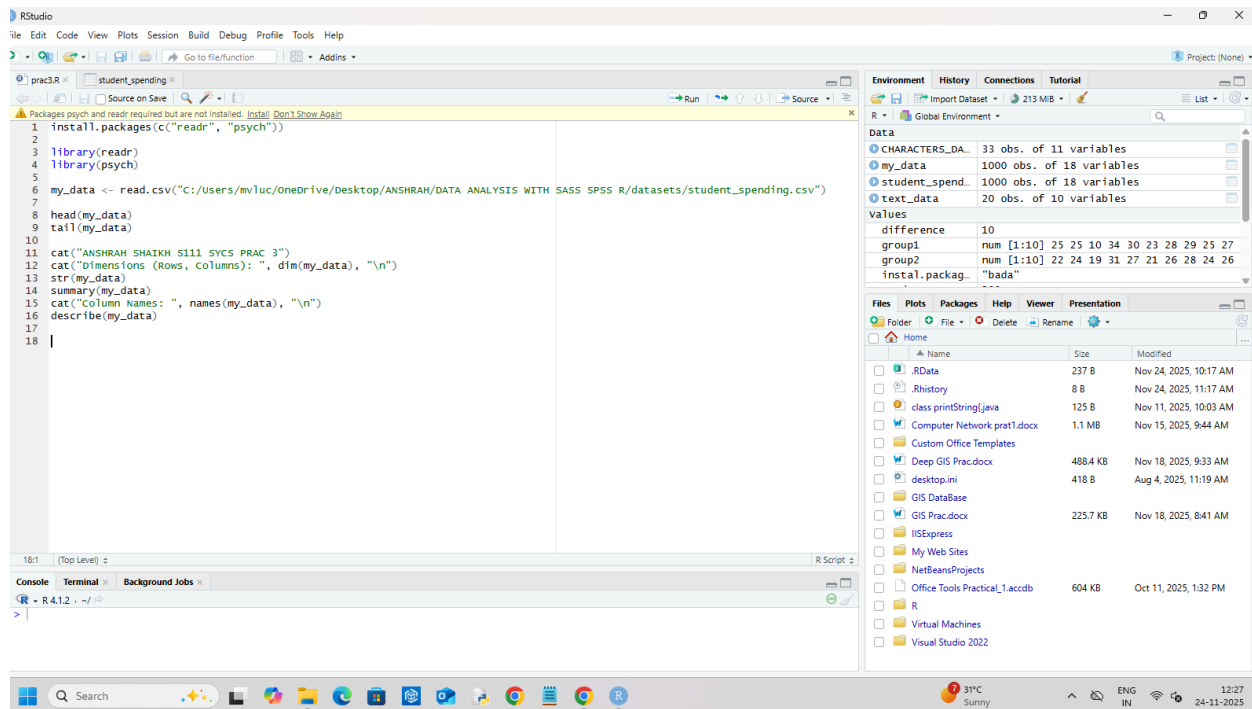


MVLU COLLEGE

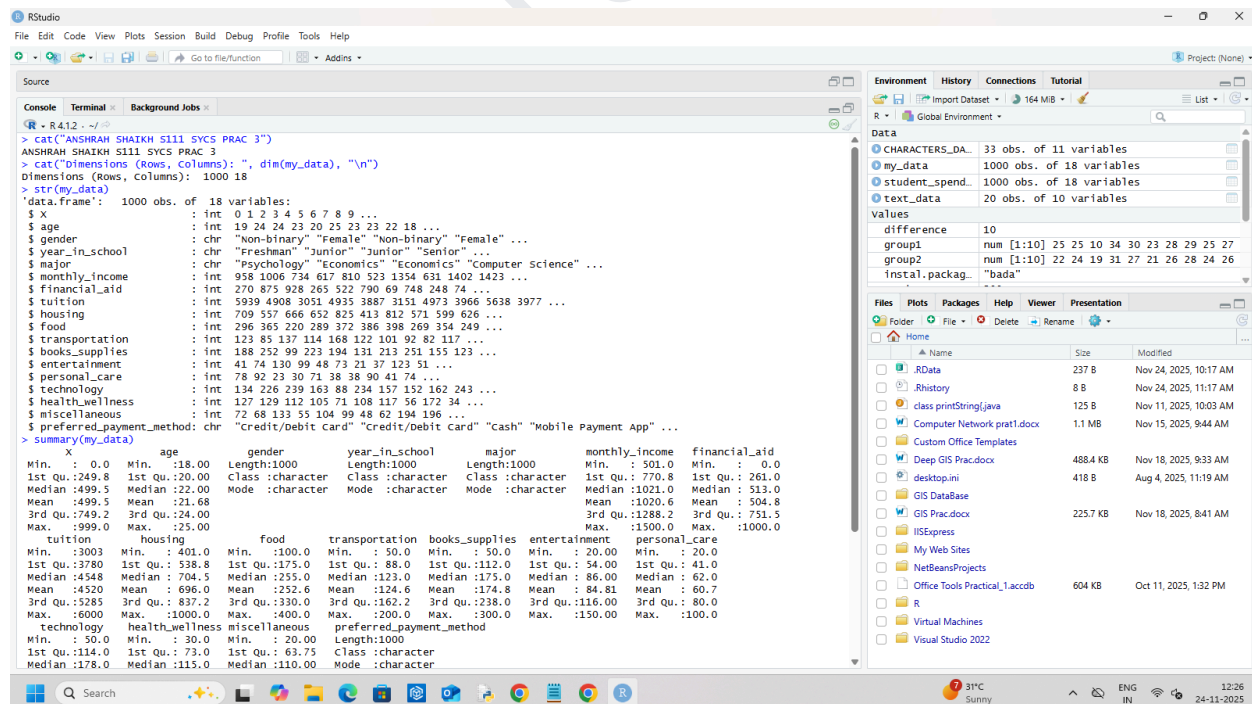
Aim: 3 Exploring data: View() or print() (R).

Input:



```
1 install.packages(c("readr", "psych"))
2
3 library(readr)
4 library(psych)
5
6 my_data <- read_csv("C:/Users/mvlu/OneDrive/Desktop/ANSHRAH/DATA ANALYSIS WITH SASS SPSS R/datasets/student_spending.csv")
7
8 head(my_data)
9 tail(my_data)
10
11 cat("ANSHRAH SHAIKH S111 SYCS PRAC 3")
12 cat("Dimensions (Rows, columns): ", dim(my_data), "\n")
13 str(my_data)
14 summary(my_data)
15 cat("Column Names: ", names(my_data), "\n")
16 describe(my_data)
17
18 |
```

output:



```
> cat("ANSHRAH SHAIKH S111 SYCS PRAC 3")
ANSHRAH SHAIKH S111 SYCS PRAC 3
> cat("Dimensions (Rows, columns): ", dim(my_data), "\n")
Dimensions (Rows, columns): 1000 18
> str(my_data)
'data.frame': 1000 obs. of 18 variables:
 $ x      : int  0 1 2 3 4 5 6 7 8 9 ...
 $ age    : int  19 24 24 23 20 25 23 23 22 18 ...
 $ gender : chr  "non-binary" "female" "non-binary" "female" ...
 $ year_in_school : chr  "Freshman" "Junior" "Junior" "Senior" ...
 $ major  : chr  "Psychology" "Economics" "Economics" "Computer Science" ...
 $ monthly_income : int  958 1006 734 617 810 523 1354 631 1402 1423 ...
 $ financial_aid : int  270 875 928 265 522 790 69 748 248 74 ...
 $ tuition  : int  5939 4908 3051 4935 3887 3151 4973 3966 5638 3977 ...
 $ housing  : int  296 365 220 289 372 386 398 269 354 249 ...
 $ food     : int  123 85 137 114 168 122 101 92 82 117 ...
 $ transportation : int  188 252 99 223 194 131 213 251 155 123 ...
 $ books_supplies : int  41 74 130 99 48 73 21 37 123 91 ...
 $ entertainment : int  78 92 23 30 71 38 38 90 41 74 ...
 $ personal_care : int  134 226 239 163 88 234 157 152 162 243 ...
 $ technology   : int  127 129 112 105 71 108 117 56 172 34 ...
 $ health_wellness : int  72 68 133 55 104 99 48 62 194 196 ...
 $ miscellaneous : chr  "credit/debit card" "credit/debit card" "cash" "Mobile Payment App" ...
 $ preferred_payment_method : chr  "credit/debit card" "credit/debit card" "cash" "Mobile Payment App" ...
> summary(my_data)
      x      age      gender      year_in_school      major      monthly_income      financial_aid
Min.   : 0.0   Min.   :18.00   Length:1000   Length:1000   Length:1000   Min.   : 501.0   Min.   : 0.0
1st Qu.:249.8 1st Qu.:20.00   Class :character   Class :character   Class :character   1st Qu.: 770.8   1st Qu.: 261.0
Median :499.5 Median :22.00   Mode  :character   Mode  :character   Mode  :character   Median :1021.0 Median : 513.0
Mean   :499.5 Mean   :21.68   Mean   :1020.6      Mean   :1020.6      Mean   :504.8
3rd Qu.:749.2 3rd Qu.:24.00   3rd Qu.:1288.2      3rd Qu.:1288.2      3rd Qu.: 751.5
Max.   :999.0 Max.   :25.00   Max.   :1500.0      Max.   :1500.0      Max.   :1000.0

      tuition      housing      food      transportation      books_supplies      entertainment      personal_care
Min.   :3003   Min.   :401.0   Min.   :100.0   Min.   : 50.0   Min.   : 50.0   Min.   : 20.00   Min.   : 20.0
1st Qu.:3780   1st Qu.: 538.8   1st Qu.:175.0   1st Qu.: 88.0   1st Qu.:112.0   1st Qu.: 54.00   1st Qu.: 41.0
Median :4548   Median : 704.5   Median :255.0   Median :123.0   Median :175.0   Median : 86.00   Median : 62.0
Mean   :4520   Mean   : 696.0   Mean   :252.6   Mean   :124.6   Mean   :174.8   Mean   : 84.81   Mean   : 60.7
3rd Qu.:5285   3rd Qu.: 837.2   3rd Qu.:330.0   3rd Qu.:162.2   3rd Qu.:238.0   3rd Qu.:116.00   3rd Qu.: 80.0
Max.   :6000   Max.   :1000.0   Max.   :400.0   Max.   :200.0   Max.   :300.0   Max.   :150.00   Max.   :100.0

      technology      health_wellness      miscellaneous      preferred_payment_method
Min.   : 50.0   Min.   : 30.0   Min.   : 20.00   Length:1000
1st Qu.:114.0   1st Qu.: 73.0   1st Qu.: 63.75   Class :character
Median :178.0   Median :115.0   Median :110.00   Mode  :character
```

ANSHRAH SHAIKH
S111
SYCS
DATA ANALYSIS IN SASS / SPSS / R

MVLU COLLEGE

The screenshot displays the RStudio environment with the following components:

- Source:** Contains R code for data loading and summarization.
- Console:** Shows the execution of the code, including a summary of the 'my_data' dataset.
- Environment:** Lists loaded objects: CHARACTERS_DA (33 obs. of 11 variables), my_data (1000 obs. of 18 variables), student_spends (1000 obs. of 18 variables), and text_data (20 obs. of 10 variables).
- Files:** A file explorer showing the project directory structure, including folders like 'RData', 'Rhistory', and files like 'class printString.java', 'Computer Network prat1.docx', 'Custom Office Templates', 'Deep GIS Prac.docx', 'desktop.ini', 'GIS DataBase', 'GIS Prac.docx', 'ISEpress', 'My Web Sites', 'NetBeansProjects', 'Office Tools Practical_1.accd', 'R', 'Virtual Machines', and 'Visual Studio 2022'.

Console Output:

```
> summary(my_data)
  x      age      gender  year_in_school  major  monthly_income  financial_aid
Min.   : 0.0   Min.   :18.00  Length:1000  Length:1000  Length:1000  Min.   : 501.0  Min.   : 0.0
1st Qu.:249.8 1st Qu.:20.00  Class :character  Class :character  Class :character 1st Qu.: 770.8 1st Qu.: 261.0
Median :499.5 Median :22.00  Mode  :character  Mode  :character  Mode  :character Median :1021.0 Median : 513.0
Mean   :499.5 Mean   :21.68                                     Mean :1020.6 Mean   : 504.8
3rd Qu.:749.2 3rd Qu.:24.00                                     3rd Qu.:1288.2 3rd Qu.: 751.5
Max.   :999.0 Max.   :25.00                                     Max.   :1500.0 Max.   :1000.0

  tuition  housing  food  transportation  books_supplies  entertainment  personal_care
Min.   :3003  Min.   :401.0  Min.   :100.0  Min.   : 50.0  Min.   : 50.0  Min.   : 20.00  Min.   : 20.0
1st Qu.:3780 1st Qu.: 538.8 1st Qu.:175.0 1st Qu.: 88.0 1st Qu.:112.0 1st Qu.: 54.00 1st Qu.: 41.0
Median :4548 Median : 704.5 Median :255.0 Median :123.0 Median :175.0 Median : 86.00 Median : 62.0
Mean   :4520 Mean   : 696.0 Mean   :252.6 Mean   :124.6 Mean   :174.8 Mean   : 84.81 Mean   : 60.7
3rd Qu.:5285 3rd Qu.: 837.2 3rd Qu.:330.0 3rd Qu.:162.2 3rd Qu.:238.0 3rd Qu.:116.00 3rd Qu.: 80.0
Max.   :6000 Max.   :1000.0 Max.   :400.0 Max.   :200.0 Max.   :300.0 Max.   :150.00 Max.   :100.0

  technology  health_wellness  miscellaneous  preferred_payment_method
Min.   : 50.0  Min.   : 30.0  Min.   : 20.00  Length:1000
1st Qu.:114.0 1st Qu.: 73.0 1st Qu.: 63.75  Class :character
Median :178.3 Median :115.0 Median :110.00 Mode  :character
Mean   :178.3 Mean   :114.3 Mean   :108.91
3rd Qu.:241.0 3rd Qu.:158.0 3rd Qu.:153.00
Max.   :300.0 Max.   :200.0 Max.   :200.00

> cat("Column Names: ", names(my_data), "\n")
column Names: x age gender year_in_school major monthly_income financial_aid tuition housing food transportation books_supplies en
tainment personal_care technology health_wellness miscellaneous preferred_payment_method
> describe(my_data)
Error in describe(my_data) : could not find function "describe"
```

Environment Panel:

Object	Size	Variables
CHARACTERS_DA	33 obs.	11 variables
my_data	1000 obs.	18 variables
student_spends	1000 obs.	18 variables
text_data	20 obs.	10 variables

Files Panel:

Name	Size	Modified
RData	237 B	Nov 24, 2025, 10:17 AM
Rhistory	8 B	Nov 24, 2025, 11:17 AM
class printString.java	125 B	Nov 11, 2025, 10:03 AM
Computer Network prat1.docx	1.1 MB	Nov 15, 2025, 9:44 AM
Custom Office Templates		
Deep GIS Prac.docx	4884 KB	Nov 18, 2025, 9:33 AM
desktop.ini	418 B	Aug 4, 2025, 11:19 AM
GIS DataBase		
GIS Prac.docx	2257 KB	Nov 18, 2025, 8:41 AM
ISEpress		
My Web Sites		
NetBeansProjects		
Office Tools Practical_1.accd	604 KB	Oct 11, 2025, 1:32 PM
R		
Virtual Machines		
Visual Studio 2022		

ANSHRAH SHAIKH

S111

SYCS

DATA ANALYSIS IN SASS / SPSS / R