

SHETH L.U.J. AND SIR M.V. COLLEGE

AIM:- Exploring data: View() or print() (R).

OUTPUT:-

The first screenshot shows the RStudio interface with the following code in the console:

```
R - R4.5.2 - ~/ -  
> install.packages(c("readr", "psych"))  
Restarting R session...  
> install.packages(c("readr", "psych"))  
WARNING: Rtools is required to build R packages but is not currently installed. Please download and  
install the appropriate version of Rtools before proceeding:  
https://cran.rstudio.com/bin/windows/Rtools/  
Installing packages into 'C:/Users/CHETAN/AppData/Local/R/win-library/4.5'  
(as 'lib' is unspecified)  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.5/readr_2.1.6.zip'  
trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.5/psych_2.5.6.zip'  
package 'readr' successfully unpacked and MD5 sums checked  
package 'psych' successfully unpacked and MD5 sums checked  
The downloaded binary packages are in  
C:/Users/CHETAN/AppData/Local/Temp/Rtmpk1NUNy/downloaded_packages  
> library(readr)  
> library(psych)  
> my_data <- read_csv("world_suicide_rates.csv")  
Rows: 5126 Columns: 4  
Column specification  
Delimiter: ","  
chr (2): Country Name, Country Code  
dbl (2): Year, Suicide Rate  
Use 'spec()' to retrieve the full column specification for this data.  
Specify the column types or set 'show_col_types = FALSE' to quiet this message.  
> head(my_data)  
# A tibble: 6 x 4  
  Country Name Country Code Year Suicide Rate  
  <chr> <chr> <dbl> <dbl>  
1 Afghanistan AFG 2000 4.36  
2 Afghanistan AFG 2001 4.38  
3 Afghanistan AFG 2002 4.26  
4 Afghanistan AFG 2003 4.24  
5 Afghanistan AFG 2004 4.23  
6 Afghanistan AFG 2005 4.16  
#> tail(my_data)
```

The second screenshot shows the RStudio interface with the following code in the console:

```
> tail(my_data)  
# A tibble: 6 x 4  
  Country Name Country Code Year Suicide Rate  
  <chr> <chr> <dbl> <dbl>  
1 Zimbabwe ZWE 2016 15.1  
2 Zimbabwe ZWE 2017 15.1  
3 Zimbabwe ZWE 2018 16.1  
4 Zimbabwe ZWE 2019 15.8  
5 Zimbabwe ZWE 2020 15.5  
6 Zimbabwe ZWE 2021 17.3  
> cat("Dimensions (Rows, Columns):", dim(my_data), "\n")  
Dimensions (Rows, Columns): 5126 4  
> str(my_data)  
spc_tbl_ [5,126 x 4] (S3: spec_tbl_df/tbl_df/tbl/data.frame)  
$ Country Name: chr [1:5126] "Afghanistan" "Afghanistan" "Afghanistan" "Afghanistan" ...  
$ Country Code: chr [1:5126] "AFG" "AFG" "AFG" "AFG" ...  
$ Year: num [1:5126] 2000 2001 2002 2003 2004 ...  
$ Suicide Rate: num [1:5126] 4.36 4.38 4.26 4.24 4.23 4.16 4.02 3.95 3.86 3.66 ...  
- attr(*, "spec")=  
.. cols(  
.. 'Country Name' = col_character(),  
.. 'Country Code' = col_character(),  
.. 'Year' = col_double(),  
.. 'Suicide Rate' = col_double()  
.. )  
- attr(*, "problems")=externalptr>  
> summary(my_data)  
Country Name Country Code Year Suicide Rate  
Length:5126 Length:5126 Min. :2000 Min. : 0.000  
Class :character Class :character 1st Qu.:2005 1st Qu.: 4.960  
Mode :character Mode :character Median :2010 Median : 7.670  
Mean :2010 Mean : 9.516  
3rd Qu.:2016 3rd Qu.:12.781  
Max. :2021 Max. :53.060  
> cat("Column Names:", names(my_data), "\n")  
Column Names: Country Name Country Code Year Suicide Rate  
> psych::describe(my_data)  
vars n mean sd median trimmed mad min max range skew kurtosis  
Country Name* 1 5126 117.00 67.27 117.00 117.00 85.99 1 233.00 232.00 0.00 -1.20  
Country Code* 2 5126 117.00 67.27 117.00 117.00 85.99 1 233.00 232.00 0.00 -1.20
```

The Environment pane on the right shows the following data objects:

Object	Size	Modified
energy_consumption	5000 obs. of 6 variables	Aug 4, 2025, 8:25 PM
my_data	5126 obs. of 4 variables	Sep 26, 2025, 8:12 AM
transactions	299695 obs. of 17 variables	Nov 24, 2025, 12:33 PM
world_suicide_rates	5126 obs. of 4 variables	Nov 18, 2025, 10:58 AM

NAME:- CHETAN MANDAVKAR

ROLL NO. S093

SUBJECT:- Data Analysis with SAS / SPSS / R

SHETH L.U.J. AND SIR M.V. COLLEGE

The screenshot shows the RStudio environment. The console on the left displays the following R code and output:

```
> cat("Column Names:", names(my_data), "\n")
Column Names: Country Name Country Code Year Suicide Rate
> psych::describe(my_data)
vars      n mean  sd median trimmed mad min  max range skew kurtosis
Country Name* 1 5126 117.00 67.27 117.00 117.00 85.99 1 233.00 232.00 0.00 -1.20
Country Code* 2 5126 117.00 67.27 117.00 117.00 85.99 1 233.00 232.00 0.00 -1.20
Year          3 5126 2010.50 6.34 2010.50 2010.50 8.15 2000 2021.00 21.00 0.00 -1.21
Suicide Rate  4 5126 9.52 6.79 7.67 8.61 5.25 0 53.06 53.06 1.68 4.32
se
Country Name* 0.94
Country Code* 0.94
Year          0.09
Suicide Rate  0.09
>
> library(readr)
> dataset <- read_csv(NULL)

Error in `vroom::vroom()`:
! 'file' is not one of the supported inputs:
• A filepath or character vector of filepaths
• A connection or list of connections
• Literal or raw input
Run `rlang::last_trace()` to see where the error occurred.

> library(readr)
> energy_consumption <- read_csv("C:/Users/CHETAN/Downloads/energy_consumption.csv")
Rows: 5000 Columns: 6
# Column specification
Delimiter: ","
chr (3): customer_id, customer_type, regions
dbl (3): building_size_m2, occupants, energy_cost_br1

! Use `spec()` to retrieve the full column specification for this data.
! Specify the column types or set `show_col_types = FALSE` to quiet this message.
> View(energy_consumption)
> install.packages("dplyr")

WARNING: Rtools is required to build R packages but is not currently installed. Please download and install the appropriate version of Rtools before proceeding.
```

The file explorer on the right shows the following files and folders:

Name	Size	Modified
My Pictures		
My Videos		
NetBeansProjects		
O.E - Copy.pptx	1.1 MB	Aug 5, 2025, 10:00 AM
O.E.pptx	1.1 MB	Aug 4, 2025, 8:25 PM
prac 1.txt	125 B	Sep 26, 2025, 8:12 AM
Practical_No_3_RR	339 B	Nov 24, 2025, 12:33 PM
Processed_Student_Mental_Health.csv	6.1 KB	Nov 18, 2025, 10:58 AM
S093 CHETAN MANDAVKAR FEATURE ENGINEERING SUBMISSION - Colab	2.3 MB	Jul 27, 2025, 4:18 PM
S093_Chetan_Mandavkar_FP_Soft_Copy_Documentation_1(1).docx	45.1 KB	Oct 15, 2025, 8:30 PM
SHRUTI MANDAVKAR EVS REPORT.pdf	357.3 KB	Nov 21, 2025, 7:34 PM
Structure and functions of pancreas Shruti Mandavkar.pptx	639.7 KB	Aug 24, 2025, 11:35 AM
Virtual Machines		
world_suicide_rates.csv	157.1 KB	Nov 24, 2025, 11:38 AM
energy_consumption.csv	224.5 KB	Nov 24, 2025, 12:40 PM
Practical_No_4_RR	1.2 KB	Nov 24, 2025, 12:51 PM

NAME:- CHETAN MANDAVKAR

ROLL NO. S093

SUBJECT:- Data Analysis with SAS / SPSS /R