

# MVLU COLLEGE

AIM: M2: Practical 1 to 6 Generating descriptive statistics using summary() or describe() (R). Generating frequency tables using table() or count() (R). Creating cross-tabulations and two-way tables using table() (R). Performing one-sample t-tests using t.test() (R). Performing independent two-sample t-tests using t.test() with grouping (R). Performing paired t-tests using t.test(paired=TRUE) (R). **NOTE: Use different Dataset**

## PRACTICAL 1 OUTPUT:

The screenshot shows the RStudio interface with the following details:

- Console:** Displays R code and its output. The code includes loading the psych library, reading a CSV file, and performing a summary and describe analysis on the dataset.
- Environment:** Shows a list of global variables and their characteristics (e.g., card\_on\_cash has 650 obs. of 17 variables).
- File Browser:** Shows a list of files in the current directory, including RData, Rhistory, Book1.xlsx, class printString.java, Computer Network prat1.docx, Custom Office Templates, Deep GIS Prac.docx, desktop.ini, GIS DataBase, GIS Prac.docx, IISExpress, My Web Sites, NetBeansProjects, Office Tools Practical\_1.accdb, Om AP 0.docx, OM BI PRACTICAL 8 A and B.docx, and OM BI PRACTICAL 1A.docx.

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## PRACTICAL 2 OUTPUT:

The screenshot shows the RStudio interface with the following details:

- File Edit Code View Plots Session Build Debug Profile Tools Help**
- Source** tab selected.
- Console** tab active, showing R session output:
  - Attaching package: 'dplyr'
  - The following objects are masked from 'package:stats':
    - filter, lag
  - The following objects are masked from 'package:base':
    - intersect, setdiff, setequal, union
  - warning message: package 'dplyr' was built under R version 4.1.3
  - > df2 <- read.csv("C:/Users/mvluc/OneDrive/Desktop/ANSHRAH/DATA ANALYSIS WITH SASS SPSS R/datasets/sales\_data.csv")
  - > table(df2\$Region)
  - Product\_Category n
    - Clothing 268
    - Electronics 246
    - Food 226
    - Furniture 260
- Environment** tab selected, showing the global environment with various objects listed.
- Files** tab selected in the top navigation bar, showing a file browser with files like .RData, Rhistory, Book1.xlsx, class printString.java, Computer Network prat1.docx, etc.

## PRACTICAL 3 OUTPUT:

The screenshot shows the RStudio interface with the following details:

- Console:** Displays R code and its output. The code reads a CSV file named "Student Mental health.csv" from a local path. It then creates a table named "df3" which includes the gender column and the depression column.
- Environment:** Shows a list of global variables:
  - combined: 10 obs. of 4 variables
  - dataset1: 10 obs. of 3 variables
  - dataset2: 10 obs. of 3 variables
  - dates\_dataset: 5 obs. of 2 variables
  - dates\_df: 5 obs. of 2 variables
  - df: 25 obs. of 13 variables
  - df1: 25 obs. of 12 variables
  - df2: 100 obs. of 14 variables
  - df3: 101 obs. of 11 variables
  - df4: 499 obs. of 5 variables
- File Browser:** Shows a list of files in the current directory:

Name	Size	Modified
RData	230.8 KB	Dec 8, 2025, 12:39 PM
Rhistory	12 KB	Dec 8, 2025, 12:39 PM
Book1.xlsx	18.8 KB	Dec 3, 2025, 9:59 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 Pract.docx	488.4 KB	Nov 18, 2025, 9:33 AM
GIS DataBase		
desktop.ini	418 B	Aug 4, 2025, 11:19 AM
GIS Pract.docx	225.7 KB	Nov 18, 2025, 8:41 AM
IISExpress		
My Web Sites		
NetBeansProjects		
Office Tools Practical_1.accdb	604 KB	Oct 11, 2025, 1:32 PM
Om AP 0.docx	1.2 MB	Dec 1, 2025, 9:43 AM
OM BI PRACTICAL 8 A and B.docx	832.2 KB	Dec 3, 2025, 10:03 AM
OMBI PRACTICAL 1A.docx	93.3 KB	Dec 3, 2025, 10:02 AM

## PRACTICAL 4 OUTPUT:

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RStudio window showing the Global Environment and File Explorer panes. The console output shows a One Sample t-test on the suicides dataset.

```
R > df4 <- read.csv("C:/users/mvluc/onedrive/Desktop/ANSHRAH/DATA ANALYSIS WITH SASS SPSS R/datasets/suicides_in_India_random_500.csv")
> t.test(df4$total, mu = 50)

One Sample t-test

data: df4$total
t = -9.0447, df = 498, p-value < 2.2e-16
alternative hypothesis: true mean is not equal to 50
95 percent confidence interval:
14.80295 27.36539
sample estimates:
mean of x
21.08417
```

File Explorer pane shows various files and folders in the project directory.

## PRACTICAL 5 OUTPUT:

RStudio window showing the Global Environment and File Explorer panes. The console output shows a Welch Two Sample t-test on the student\_spending dataset.

```
R > df5 <- read.csv("C:/users/mvluc/onedrive/Desktop/ANSHRAH/DATA ANALYSIS WITH SASS SPSS R/datasets/student_spending.csv")
> df5_sub <- df5 %>% filter(gender %in% c("Male", "Female"))
> t.test(monthly_income ~ gender, data = df5_sub)

Welch Two Sample t-test

data: monthly_income by gender
t = 0.71355, df = 672.29, p-value = 0.4758
alternative hypothesis: true difference in means between group Female and group Male is not equal to 0
95 percent confidence interval:
-28.14965 60.28915
sample estimates:
mean in group Female   mean in group Male
1024.328             1008.258
```

File Explorer pane shows various files and folders in the project directory.

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## PRACTICAL 6 OUTPUT:

```
R - 8.412 - ~/R
> df6 <- read.csv("C:/users/mvluc/OneDrive/Desktop/ANSHRAH/DATA ANALYSIS WITH SASS SPSS R/datasets/SalesForCourse_quizz_table.csv")
> t.test(df6$Unit.Cost, df6$Unit.Price, paired = TRUE)

Paired t-test

data: df6$Unit.Cost and df6$Unit.Price
t = -70.024, df = 34865, p-value < 2.2e-16
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
-40.45341 -38.25042
sample estimates:
mean of the differences
-39.35192

> |
```

Environment

- dates\_dataset 5 obs. of 2 variables
- dates\_df 5 obs. of 2 variables
- df 25 obs. of 13 variables
- df1 25 obs. of 12 variables
- df2 1000 obs. of 14 variables
- df3 101 obs. of 11 variables
- df4 499 obs. of 5 variables
- df5 1000 obs. of 18 variables
- df5\_sub 679 obs. of 18 variables
- df6 34867 obs. of 16 variables

Files

- Home
- RData 230.8 KB Dec 8, 2025, 12:39 PM
- Rhistory 12 KB Dec 8, 2025, 12:39 PM
- Book1.xlsx 18.8 KB Dec 3, 2025, 9:59 AM
- class printString.java 125 B Nov 11, 2025, 10:03 AM
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- OM BI PRACTICAL 8 A and B.docx 832.2 KB Dec 3, 2025, 10:03 AM
- OMBI PRACTICAL 1a.docx 933.8 KB Dec 3, 2025, 10:02 AM

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