

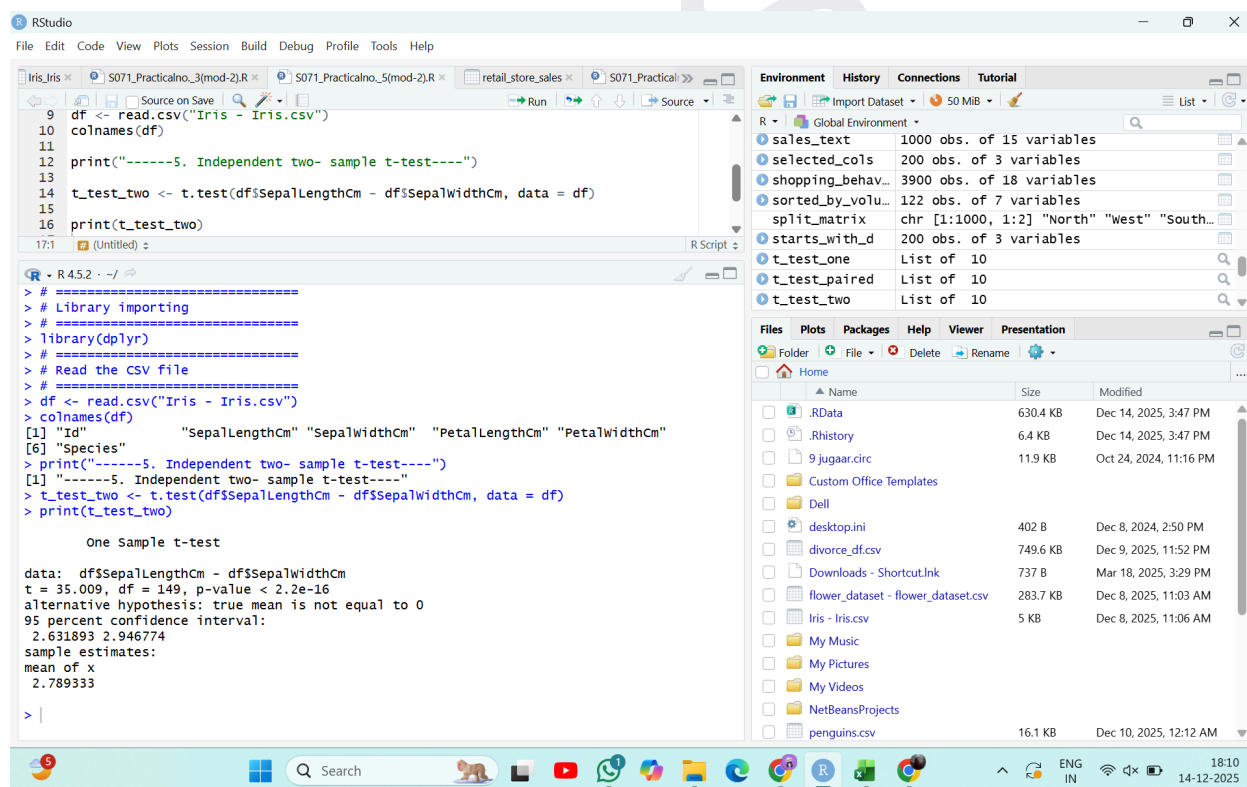
SHETH L.U.J AND SIR M.V COLLEGE

Subject: Data Analysis with SAS / SPSS /R

Practical no. 5

Aim: Performing independent two-sample t-tests using `t.test()` with grouping (R)

Outputs→



The screenshot displays the RStudio interface with the following components:

- Source Editor:** Contains R code for reading a CSV file and performing a t-test.

```
9 df <- read.csv("Iris - Iris.csv")
10 colnames(df)
11
12 print("-----5. Independent two- sample t-test-----")
13
14 t_test_two <- t.test(df$SepalLengthCm - df$SepalWidthCm, data = df)
15
16 print(t_test_two)
```
- Console:** Shows the execution output, including the column names of the dataset and the results of the t-test.

```
> # =====
> # Library importing
> # =====
> library(dplyr)
> # =====
> # Read the CSV file
> df <- read.csv("Iris - Iris.csv")
> colnames(df)
[1] "Id"          "SepalLengthCm" "SepalWidthCm" "PetalLengthCm" "PetalWidthCm"
[6] "Species"
> print("-----5. Independent two- sample t-test-----")
[1] "-----5. Independent two- sample t-test-----"
> t_test_two <- t.test(df$SepalLengthCm - df$SepalWidthCm, data = df)
> print(t_test_two)

One Sample t-test

data: df$SepalLengthCm - df$SepalWidthCm
t = 35.009, df = 149, p-value < 2.2e-16
alternative hypothesis: true mean is not equal to 0
95 percent confidence interval:
 2.631893 2.946774
sample estimates:
mean of x
 2.789333
```
- Environment:** Lists the objects in the global environment, including `sales_text`, `selected_cols`, `shopping_behav...`, `sorted_by_volu...`, `split_matrix`, `starts_with_d`, `t_test_one`, `t_test_paird`, and `t_test_two`.
- Files:** Shows a list of files in the current directory, including `.RData`, `.Rhistory`, `9 jugaar.circ`, `Custom Office Templates`, `Dell`, `desktop.ini`, `divorce_df.csv`, `Downloads - Shortcut.lnk`, `flower_dataset - flower_dataset.csv`, `Iris - Iris.csv`, `My Music`, `My Pictures`, `My Videos`, `NetBeansProjects`, and `penguins.csv`.