

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

Aim:- Performing One Sample t-Test Using t.Test() in R

The screenshot shows the RStudio interface with the following details:

- Console:** Displays the R script for performing a One Sample t-Test on the "YouthUnemployment" column of the "youth_unemployment_global.csv" dataset.
- Environment:** Shows the global environment with various objects and their descriptions.
- Files:** Shows a list of files in the current directory, including presentation files and CSV datasets.
- Plots:** No plots are present in this screenshot.
- System:** Shows the system tray with weather (29°C, Sunny), date (15-12-2025), and time (12:52).

```
> library(dplyr)
> df <- read.csv("youth_unemployment_global.csv", header = TRUE, stringsAsFactors = TRUE)
> print("Column names in dataset:")
[1] "Country"
[2] "CountryCode"
[3] "Year"
[4] "YouthUnemployment"
> target_col <- names(df)[ncol(df)]
> df <- df %>%
+   filter(is.na(data[[target_col]]))
> df[[target_col]] <- as.numeric(df[[target_col]])
> print(paste("Summary of", target_col, ":"))
[1] "Summary of YouthUnemployment :"
> summary(df[[target_col]])
Min. 1st Qu. Median Mean 3rd Qu. Max.
0.295 8.531 14.182 16.668 22.031 82.409
> print(paste("One-Sample t-test on", target_col))
[1] "One-Sample t-test on YouthUnemployment"
> t_test_one <- t.test(
+   df[[target_col]],
+   mu = 10
+ )
> print(t_test_one)
```

One Sample t-test

```
data: df[[target_col]]
t = 51.493, df = 7980, p-value < 2.2e-16
alternative hypothesis: true mean is not equal to 10
95 percent confidence interval:
16.41390 16.92156
sample estimates:
mean of x
16.66773

> if (t_test_one$p.value < 0.05) {
+   print("Result: Reject the null hypothesis.")
+   print(paste("Conclusion: The average", target_col, "is significantly different from 10%."))} else {
+   print("Result: Fail to reject the null hypothesis.")
+   print(paste("Conclusion: The average", target_col, "is not significantly different from 10%."))}
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NAME:- CHETAN MANDAVKAR
ROLL NO. S093
SUBJECT:- Data Analysis With SAS / SPSS / R