

# Sheth I.u.j. And sir m.v. college of arts science and commerce

## Practical no. 4 mod2

Aim: .Performing one-sample t-tests using t.test() ®

The image shows two side-by-side RStudio sessions. Both sessions have the following setup:

- File Edit Code View Plots Session Build Debug Profile Tools Help
- R Script tab active
- Environment pane on the right showing various global variables and their sizes.
- Plots, Packages, Help, Viewer, Presentation tabs at the bottom.

**Session 1 (Left):**

```
1 # Read the CSV file
2 market_data <- read.csv("Agriculture_price_dataset.csv")
11:21 (Top Level) : 
> # Read the CSV file
> market_data <- read.csv("Agriculture_price_dataset.csv")
> # View the dataset
> head(market_data)
   STATE District.Name Market.Name Commodity Variety Grade Min_Price Max_Price
1 Maharashtra nashik Lasalgaon(Niphad) Wheat Maharashtra 2189 FAQ  2172  2399
2 Maharashtra sataru Patan Tomato Other    FAQ  1000  1500
3 Uttar Pradesh mainpuri Bewar Potato Local   FAQ  800   820
4 Rajasthan chittorgarh Nimbahera Wheat Other   FAQ  2040  2668
5 Rajasthan pratapgarh Pratapgarh Onion Other   FAQ  476   1043
6 Rajasthan bharatpur Bayana Onion Onion   FAQ  1000  1000
  Modal_Price Price.Date
1      2300 6/6/2023
2      1250 6/6/2023
3       810 6/6/2023
4      2300 6/6/2023
5       617 6/6/2023
6      1000 6/6/2023
> # One-sample t-test
> t_test_result <- t.test(market_data$Modal_Price, mu = 115)
>
> # View result
> print(t_test_result)

One Sample t-test

data: market_data$Modal_Price
t = 1001.1, df = 737391, p-value < 2.2e-16
alternative hypothesis: true mean is not equal to 115
95 percent confidence interval:
 2469.865 2479.104
sample estimates:
mean of x
 2474.485

> print("simran s113")
[1] "simran s113"
> |
```

**Session 2 (Right):**

```
1 # Read the CSV file
2 market_data <- read.csv("Agriculture_price_dataset.csv")
11:21 (Top Level) : 
> # Read the CSV file
> market_data <- read.csv("Agriculture_price_dataset.csv")
> # View the dataset
> head(market_data)
   STATE District.Name Market.Name Commodity Variety Grade Min_Price Max_Price
1 Maharashtra nashik Lasalgaon(Niphad) Wheat Maharashtra 2189 FAQ  2172  2399
2 Maharashtra sataru Patan Tomato Other    FAQ  1000  1500
3 Uttar Pradesh mainpuri Bewar Potato Local   FAQ  800   820
4 Rajasthan chittorgarh Nimbahera Wheat Other   FAQ  2040  2668
5 Rajasthan pratapgarh Pratapgarh Onion Other   FAQ  476   1043
6 Rajasthan bharatpur Bayana Onion Onion   FAQ  1000  1000
  Modal_Price Price.Date
1      2300 6/6/2023
2      1250 6/6/2023
3       810 6/6/2023
4      2300 6/6/2023
5       617 6/6/2023
6      1000 6/6/2023
> # One-sample t-test
> t_test_result <- t.test(market_data$Modal_Price, mu = 115)
>
> # View result
> print(t_test_result)

One Sample t-test

data: market_data$Modal_Price
t = 1001.1, df = 737391, p-value < 2.2e-16
alternative hypothesis: true mean is not equal to 115
95 percent confidence interval:
 2469.865 2479.104
sample estimates:
mean of x
 2474.485

> print("simran s113")
[1] "simran s113"
> |
```

Name: Simran s113