

## LAB 07

IT24100905

Rathnayake W.T.R

The screenshot displays the RStudio interface with three main panes: Source, Console, and Environment.

**Source Pane:** Contains an R script with the following code:

```
1 setwd("C:\\SLIIT\\IT2120 PS\\Labs\\Lab 9")
2 getwd()
3
4 # Exercise 1
5 # Part 1
6 baking_time <- rnorm(25, mean = 45, sd = 2)
7
8 # Part 2
9 t.test(baking_time, mu = 46, alternative = "less")
10
11
```

**Console Pane:** Shows the R version and system information, followed by the execution of the script commands and the output of the t-test.

```
R version 4.5.1 (2025-06-13 ucrt) -- "Great Square Root"
Copyright (C) 2025 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> getwd()
[1] "H:/SLIIT/2nd Year/1st Sem/PS/Labs/LAB 09/TT"
> # Exercise 1
> # Part 1
> baking_time <- rnorm(25, mean = 45, sd = 2)
> # Part 2
> t.test(baking_time, mu = 46, alternative = "less")

      One Sample t-test

data:  baking_time
t = -4.0649, df = 24, p-value = 0.0002236
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
 -Inf 44.97548
sample estimates:
mean of x
 44.23088
```

**Environment Pane:** Shows the current environment with the following variables:

Variable	Class	Length	Values
baking_time	num	[1:25]	42.1 43.7 45.7 43.4 ...