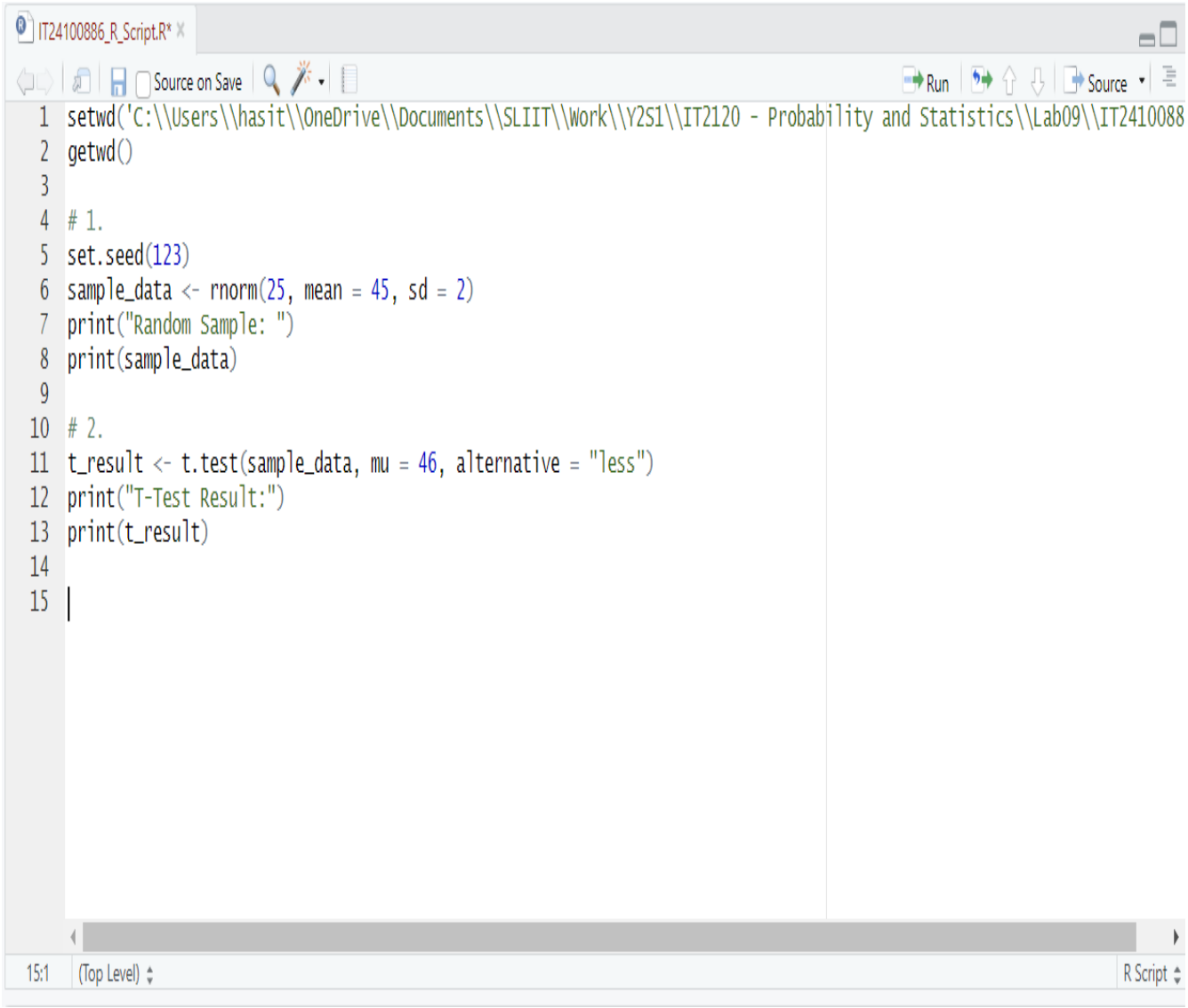
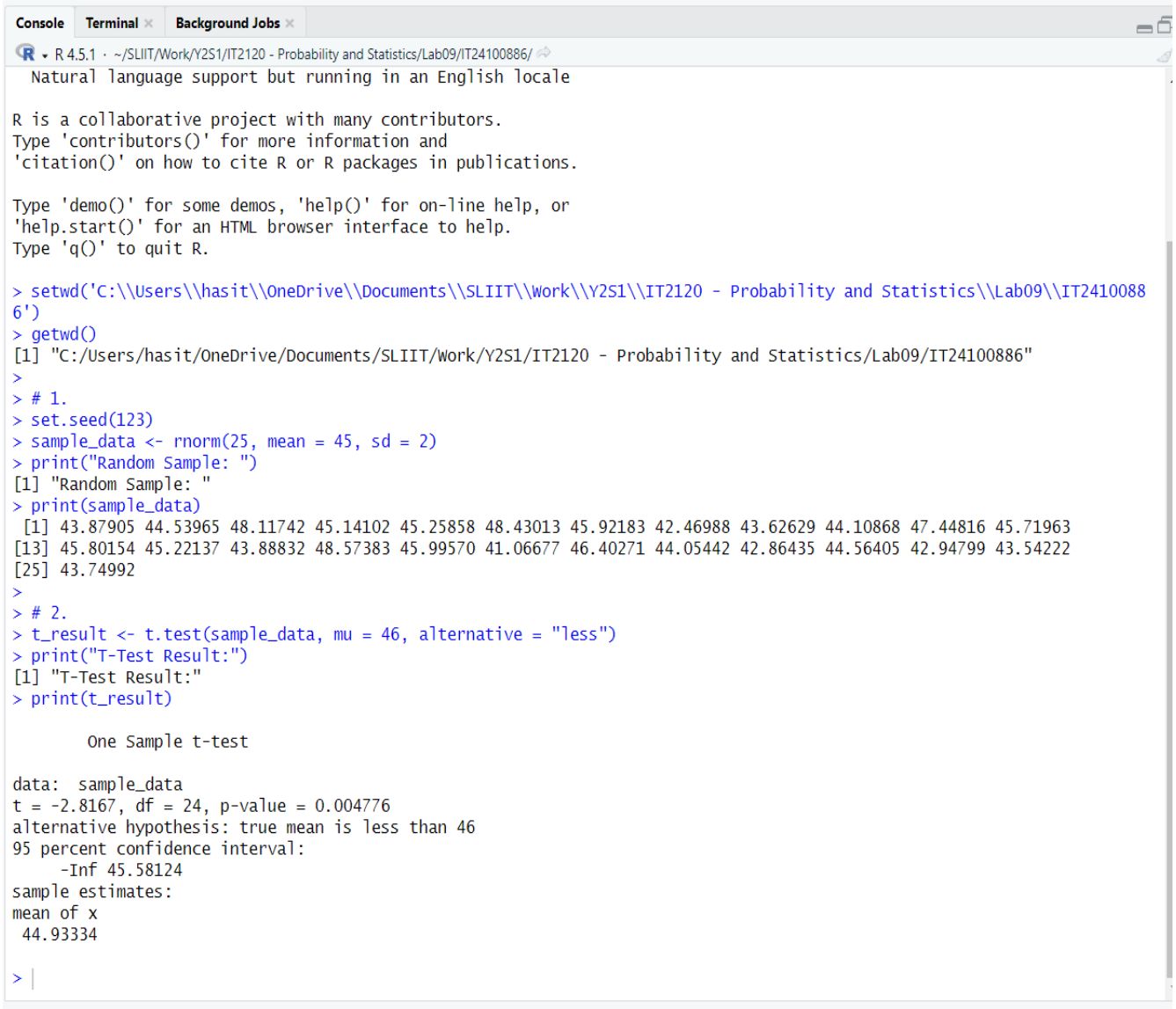
IT24100886

IT2120 - Probability and Statistics
LabSheet 09

Script



Console


Console
Terminal
Background Jobs
R 4.5.1 · ~/SLIIT/Work/Y2S1/IT2120 - Probability and Statistics/Lab09/IT24100886/
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.
> setwd('C:\\Users\\hasit\\OneDrive\\Documents\\SLIIT\\Work\\Y2S1\\IT2120 - Probability and Statistics\\Lab09\\IT24100886')
> getwd()
[1] "C:/Users/hasit/OneDrive/Documents/SLIIT/Work/Y2S1/IT2120 - Probability and Statistics/Lab09/IT24100886"
>
> # 1.
> set.seed(123)
> sample_data <- rnorm(25, mean = 45, sd = 2)
> print("Random Sample: ")
[1] "Random Sample: "
> print(sample_data)
[1] 43.87905 44.53965 48.11742 45.14102 45.25858 48.43013 45.92183 42.46988 43.62629 44.10868 47.44816 45.71963
[13] 45.80154 45.22137 43.88832 48.57383 45.99570 41.06677 46.40271 44.05442 42.86435 44.56405 42.94799 43.54222
[25] 43.74992
>
> # 2.
> t_result <- t.test(sample_data, mu = 46, alternative = "less")
> print("T-Test Result:")
[1] "T-Test Result:"
> print(t_result)
One Sample t-test
data: sample_data
t = -2.8167, df = 24, p-value = 0.004776
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
-Inf 45.58124
sample estimates:
mean of x
44.93334
>