

Sri Lanka Institute of Information Technology



Lab Submission
Lab sheet No 09

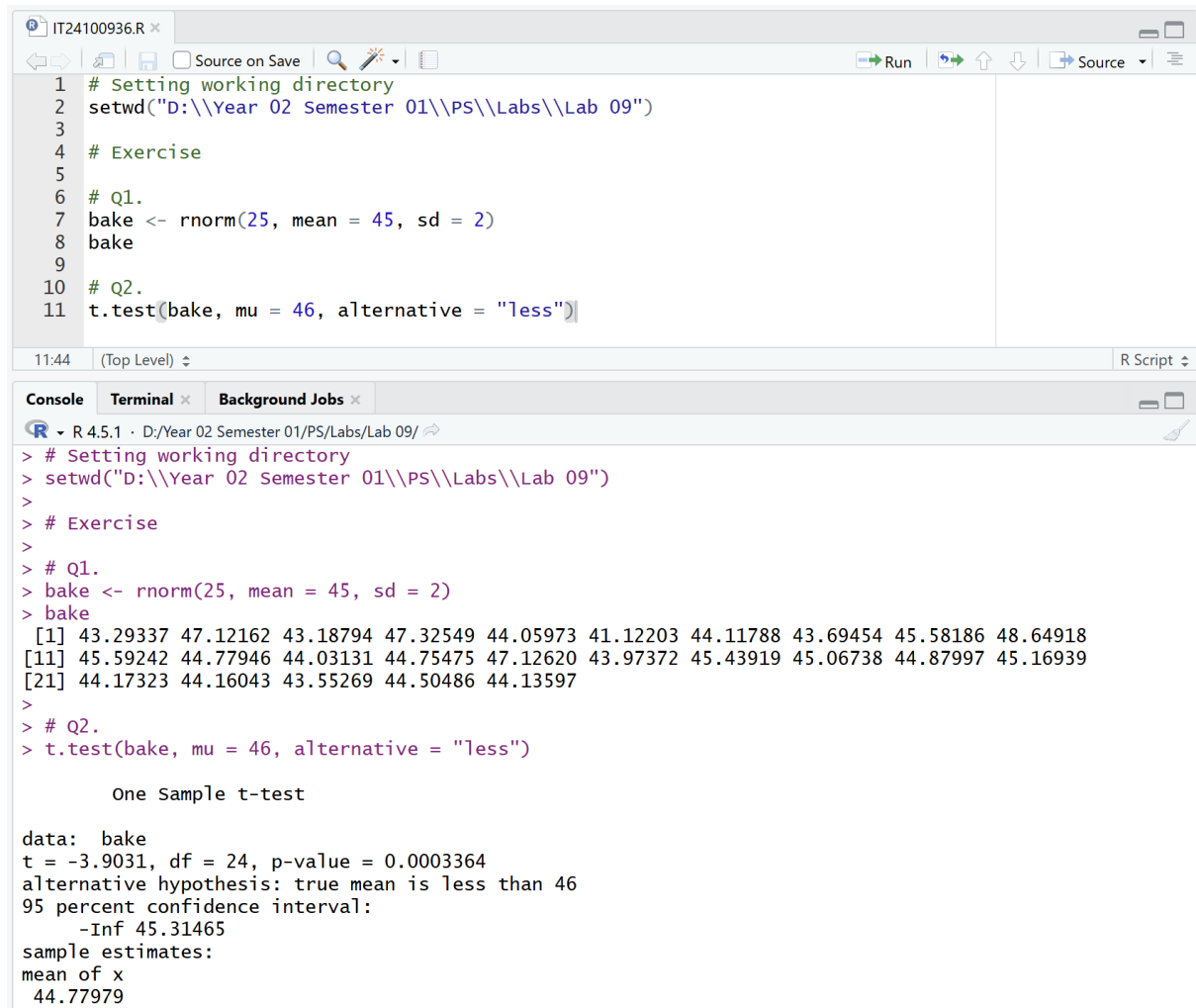
IT24100936

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Probability and Statistics | IT2120

B.Sc. (Hons) in Information Technology

Exercise



The screenshot displays the RStudio environment. The top pane shows an R script file named 'IT24100936.R' with the following code:

```
1 # Setting working directory
2 setwd("D:\\Year 02 Semester 01\\PS\\Labs\\Lab 09")
3
4 # Exercise
5
6 # Q1.
7 bake <- rnorm(25, mean = 45, sd = 2)
8 bake
9
10 # Q2.
11 t.test(bake, mu = 46, alternative = "less")
```

The bottom pane shows the console output for the executed code:

```
> # Setting working directory
> setwd("D:\\Year 02 Semester 01\\PS\\Labs\\Lab 09")
>
> # Exercise
>
> # Q1.
> bake <- rnorm(25, mean = 45, sd = 2)
> bake
 [1] 43.29337 47.12162 43.18794 47.32549 44.05973 41.12203 44.11788 43.69454 45.58186 48.64918
[11] 45.59242 44.77946 44.03131 44.75475 47.12620 43.97372 45.43919 45.06738 44.87997 45.16939
[21] 44.17323 44.16043 43.55269 44.50486 44.13597
>
> # Q2.
> t.test(bake, mu = 46, alternative = "less")

      One Sample t-test

data:  bake
t = -3.9031, df = 24, p-value = 0.0003364
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
 -Inf 45.31465
sample estimates:
mean of x
44.77979
```