

It24610829 lab 9

The screenshot displays the RStudio interface with the following components:

- Source Editor:** Contains R code for setting the working directory, generating a random sample, and performing a one-sample t-test.
- Console:** Shows the execution output, including the t-test results.
- Environment:** Lists the objects created in the environment, including 'sample'.
- Files:** Shows the file explorer on the right side.

R Code in Source Editor:

```
1 setwd("C:\\Users\\yesh\\OneDrive\\Desktop\\IT24610829")
2 getwd()
3
4 #random sample of size 25 for the baking time
5 sample <- rnorm(25, mean =45, sd =2)
6
7 # Test whether the average baking time is less than 46 minutes at a 5% level of significance.
8 t.test (sample, mu=46, alternative = "less")
9
10
```

Console Output:

```
R 4.5.1 - C:/Users/Yeshan Gimnada/Downloads/
> cannot change working directory
> getwd()
[1] "C:/Users/Yeshan Gimnada/Downloads"
>
> #random sample of size 25 for the baking time
> sample <- rnorm(25, mean =45, sd =2)
>
> # Test whether the average baking time is less than 46 minutes at a 5% level of significance.
> t.test (sample, mu=46, alternative = "less")

One Sample t-test

data: sample
t = -3.408, df = 24, p-value = 0.001156
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
 -Inf 45.43192
sample estimates:
mean of x
 44.85923
```

Environment:

- sample