

IT24102044

The screenshot displays the RStudio environment with the following components:

- Script Editor:** Contains R code for setting the working directory, generating random data, and performing a t-test.
- Console:** Shows the execution of the script, including the generated random values and the results of a one-sample t-test.
- Environment Pane:** Shows the current environment with a variable named 'baking_time' of type 'num' containing 25 values.

```
1 setwd("C:\\Users\\Dulmi Wijesighe\\Desktop\\IT24102044")
2 # Q1
3 baking_time <- rnorm(25, mean = 45, sd = 2)
4 baking_time
5
6 # Q2
7 t.test(baking_time, mu = 46, alternative = "less")
8 |
```

Console Output:

```
> setwd("C:\\Users\\Dulmi Wijesighe\\Desktop\\IT24102044")
> # Q1
> baking_time <- rnorm(25, mean = 45, sd = 2)
> baking_time
[1] 46.18883 46.04174 43.09591 42.54463 44.59519 47.11824 45.76356 47.47939 45.63355 42.91324 42.70353 47.46229
[13] 46.57843 46.49769 45.11495 46.68590 45.39972 47.90234 44.07968 39.45107 45.11298 44.87726 42.63606 39.94167
[25] 46.62715
> # Q2
> t.test(baking_time, mu = 46, alternative = "less")

One Sample t-test

data:  baking_time
t = -2.4541, df = 24, p-value = 0.01088
alternative hypothesis: true mean is less than 46
95 percent confidence interval:
 -Inf 45.6662
sample estimates:
mean of x
 44.8978
```

Environment Pane:

Variable	Type	Value
baking_time	num	[1:25] 46.2 46 43.1 42.5 44.6 ...