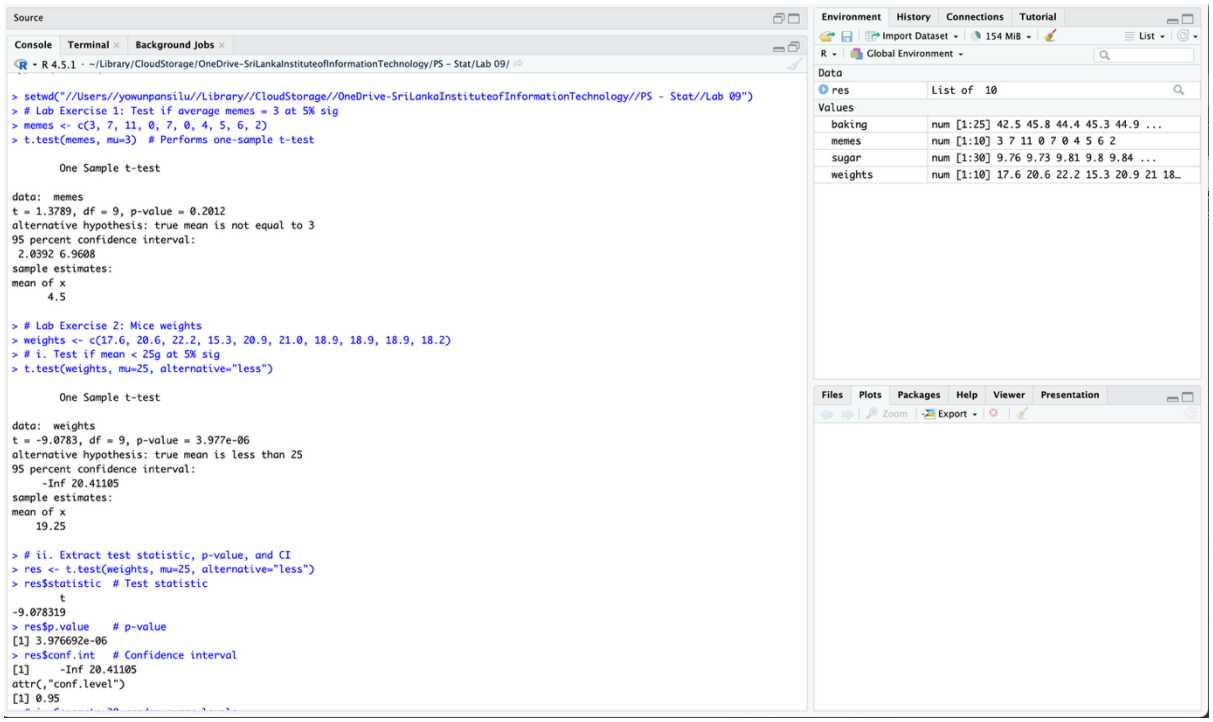
Source
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R 4.5.1 · ~/Library/CloudStorage/OneDrive-SriLankaInstituteofInformationTechnology/PS - Stat/Lab 09/
> setwd("//Users//yowunpansilu//Library//CloudStorage//OneDrive-SriLankaInstituteofInformationTechnology//PS - Stat//Lab 09")
> # Lab Exercise 1: Test if average memes = 3 at 5% sig
> memes <- c(3, 7, 11, 0, 7, 0, 4, 5, 6, 2)
> t.test(memes, mu=3) # Performs one-sample t-test
One Sample t-test
data: memes
t = 1.3789, df = 9, p-value = 0.2012
alternative hypothesis: true mean is not equal to 3
95 percent confidence interval:
2.0392 6.9608
sample estimates:
mean of x
4.5
> # Lab Exercise 2: Mice weights
> weights <- c(17.6, 20.6, 22.2, 15.3, 20.9, 21.0, 18.9, 18.9, 18.9, 18.2)
> # i. Test if mean < 25g at 5% sig
> t.test(weights, mu=25, alternative="less")
One Sample t-test
data: weights
t = -9.0783, df = 9, p-value = 3.977e-06
alternative hypothesis: true mean is less than 25
95 percent confidence interval:
-Inf 20.41105
sample estimates:
mean of x
19.25
> # ii. Extract test statistic, p-value, and CI
> res <- t.test(weights, mu=25, alternative="less")
> res$statistic # Test statistic
t
-9.078319
> res$p.value # p-value
[1] 3.976692e-06
> res$conf.int # Confidence interval
[1] -Inf 20.41105
attr(,"conf.level")
[1] 0.95
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Data
res
List of 10
Values
baking
num [1:25] 42.5 45.8 44.4 45.3 44.9 ...
memes
num [1:10] 3 7 11 0 7 0 4 5 6 2
sugar
num [1:30] 9.76 9.73 9.81 9.8 9.84 ...
weights
num [1:10] 17.6 20.6 22.2 15.3 20.9 21 18...
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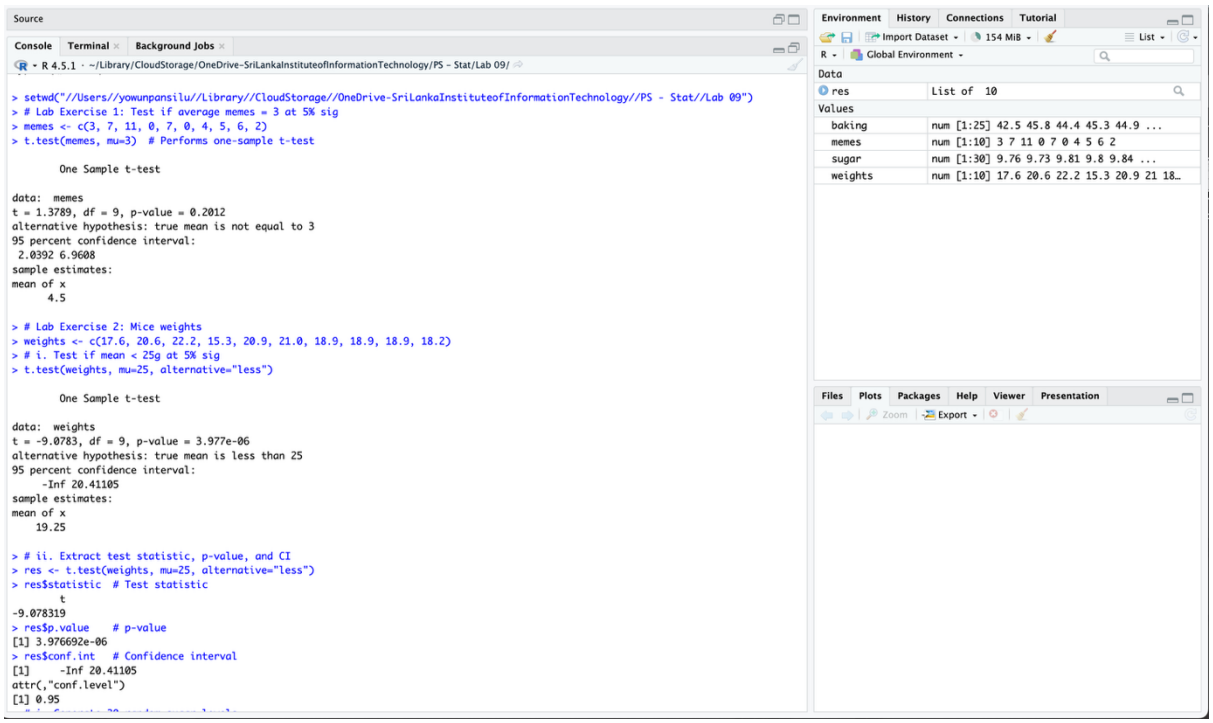
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