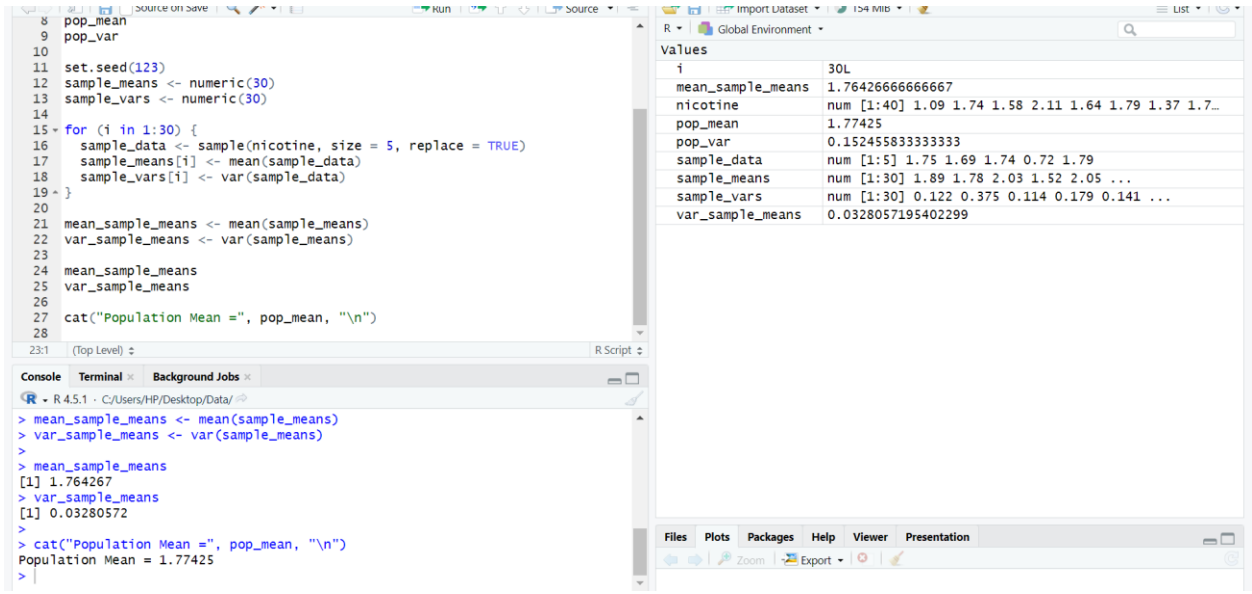
IT24103260

Lab 8

Code:

```
setwd("C:/Users/HP/Desktop/Data")
nicotine<- scan("Data - Lab 8.txt",skip=1)
nicotine
length(nicotine)
#mean & variance
pop_mean <- mean(nicotine)
pop_var <- var(nicotine)
pop_mean
pop_var

set.seed(123)
sample_means <- numeric(30)
sample_vars <- numeric(30)

for (i in 1:30) {
  sample_data <- sample(nicotine, size = 5, replace = TRUE)
  sample_means[i] <- mean(sample_data)
  sample_vars[i] <- var(sample_data)
}

mean_sample_means <- mean(sample_means)
var_sample_means <- var(sample_means)

mean_sample_means
var_sample_means

cat("Population Mean =", pop_mean, "\n")
```


pop_mean
pop_var
set.seed(123)
sample_means <- numeric(30)
sample_vars <- numeric(30)
for (i in 1:30) {
sample_data <- sample(nicotine, size = 5, replace = TRUE)
sample_means[i] <- mean(sample_data)
sample_vars[i] <- var(sample_data)
}
mean_sample_means <- mean(sample_means)
var_sample_means <- var(sample_means)
mean_sample_means
var_sample_means
cat("Population Mean =", pop_mean, "\n")
Console
Terminal
Background Jobs
R 4.5.1 · C:/Users/HP/Desktop/Data/
> mean_sample_means <- mean(sample_means)
> var_sample_means <- var(sample_means)
> mean_sample_means
[1] 1.764267
> var_sample_means
[1] 0.03280572
> cat("Population Mean =", pop_mean, "\n")
Population Mean = 1.77425
Global Environment
Values
i 30L
mean_sample_means 1.76426666666667
nicotine num [1:40] 1.09 1.74 1.58 2.11 1.64 1.79 1.37 1.7…
pop_mean 1.77425
pop_var 0.152455833333333
sample_data num [1:5] 1.75 1.69 1.74 0.72 1.79
sample_means num [1:30] 1.89 1.78 2.03 1.52 2.05 ...
sample_vars num [1:30] 0.122 0.375 0.114 0.179 0.141 ...
var_sample_means 0.0328057195402299
Files
Plots
Packages
Help
Viewer
Presentation
Export