IT24100448 – Lab 08

Console Terminal Background Jobs

R 4.5.1 · C:/Users/lapma/OneDrive/Desktop/IT24100448/

```
> setwd("C:\\Users\\lapma\\OneDrive\\Desktop\\IT24100448")
> data <- read.table("Exercise - LaptopsWeights.txt", header = TRUE)
> colnames(data)[1] <- "Weight.kg"
> attach(data)
> #Question 1
> pop_mean <- mean(Weight.kg)
> pop_mean
[1] 2.468
> pop_sd <- sd(Weight.kg)
> pop_sd
[1] 0.2561069
> sample_means <- c()
> sample_sds <- c()
> for (i in 1:25) {
+   s <- sample(Weight.kg, 6, replace = TRUE)
+   sample_mean_val <- mean(s)
+   sample_sd_val <- sd(s)
+   sample_means <- c(sample_means, sample_mean_val)
+   sample_sds <- c(sample_sds, sample_sd_val)
+ }
> sample_means
 [1] 2.300000 2.596667 2.355000 2.531667 2.563333 2.425000 2.468333 2.625000 2.413333
[10] 2.418333 2.503333 2.531667 2.480000 2.600000 2.671667 2.415000 2.461667 2.265000
[19] 2.573333 2.568333 2.515000 2.381667 2.416667 2.511667 2.368333
> sample_sds
 [1] 0.16099689 0.26379285 0.23321664 0.11016654 0.14094916 0.27638741 0.38550832
 [8] 0.12849124 0.39052102 0.44593348 0.27732051 0.22130673 0.23689660 0.13356646
[15] 0.09347014 0.11004545 0.16714265 0.17014700 0.10211105 0.27981542 0.25453880
[22] 0.22929602 0.18575970 0.31250067 0.28554626
> mean_of_sample_means <- mean(sample_means)
> sd_of_sample_means <- sd(sample_means)
> pop_mean
[1] 2.468
> mean_of_sample_means
[1] 2.4784
> pop_sd
[1] 0.2561069
> sd_of_sample_means
[1] 0.1028038
>
>
```