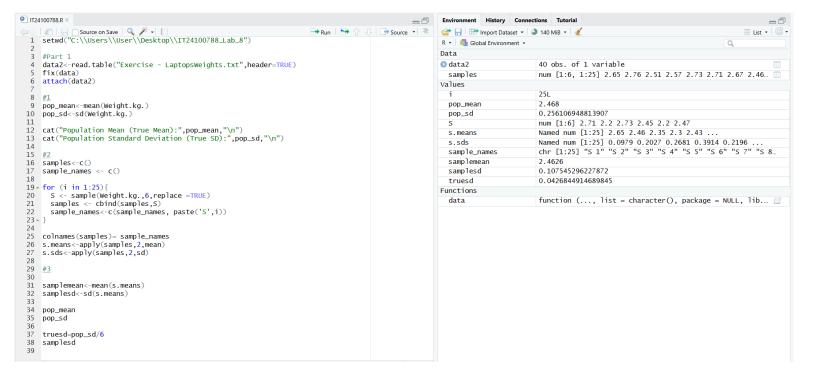
IT24100788 - Abeysinghe S.D

Probability and Statistics | Lab Sheet 08 Exercise



```
> setwd("C:\\Users\\User\\Desktop\\IT24100788_Lab_8")
> data2<-read.table("Exercise - LaptopsWeights.txt",header=TRUE)</pre>
> fix(data)
> attach(data2)
> #1
> pop_mean<-mean(Weight.kg.)</pre>
> pop_sd<-sd(Weight.kg.)</pre>
> cat("Population Mean (True Mean):",pop_mean,"\n")
Population Mean (True Mean): 2.468
> cat("Population Standard Deviation (True SD):",pop_sd,"\n")
Population Standard Deviation (True SD): 0.2561069
> #2
> samples<-c()
> sample_names <- c()
> for (i in 1:25){
    S <- sample(Weight.kg.,6,replace =TRUE)
    samples <- cbind(samples,S)</pre>
    sample_names<-c(sample_names, paste('S',i))</pre>
> colnames(samples)= sample_names
> s.means<-apply(samples,2,mean)
> s.sds<-apply(samples,2,sd)</pre>
> samplemean<-mean(s.means)</pre>
> samplesd<-sd(s.means)</pre>
> pop_mean
[1] 2.468
 pop_sd
[1] 0.2561069
> truesd=pop_sd/6
```