

Hinni Arachchi O.Y.E

IT24101268

```
Source on Save Run
#Q1
setwd("C:\\Users\\IT24101268\\Desktop\\Lab 08")

data<-read.table("Exercise - Laptopsweights.txt", header=TRUE)
fix(data)
attach(data)

popmn<-mean(weight.kg.)
popvar<-var(weight.kg.)
pop_dev <- sd(weight.kg.)

#Q2
samples<-c()
n<-c()
for(i in 25){
  s<-sample(weight.kg.,6,replace=TRUE)
  samples<-cbind(samples,s)
  n<-c(n,paste('s',i))
}
colnames(samples)=n

s.means<-apply(samples,2,mean)
s.vars<-apply(samples,2,var)
s.dev<-apply(samples,2,sd)

#Q3
samplemean<-mean(s.means)
sampledev<-sd(s.means)

popmn
samplemean

pop_dev
sampledev
```

data	40 obs. of 1 variable
samples	num [1:6, 1] 2.7 2.7 2.67 2.2 2.47 2.28
values	
i	25
n	"s 25"
pop_dev	0.256106948813907
popmn	2.468
popvar	0.0655907692307692
s	num [1:6] 2.7 2.7 2.67 2.2 2.47 2.28
s.dev	Named num 0.223
s.means	Named num 2.5
s.vars	Named num 0.0496
sampledev	NA_real_
samplemean	2.503333333333333

```

> fix(data)
> attach(data)
> popmn<-(weight(kg))
Error in weight(kg) : could not find function "weight"
> popmn<-(weight.kg.)
> popmn<-mean(weight.kg.)
> popvar<-var(weight.kg.)
> pop_dev <- sd(weight.kg.)
> samples<-c()
> n<-c()
> for(i in 25){
+   s<-sample(weight.kg.,6,replace=TRUE)
+ }
> s<-sample(weight.kg.,6,replace=TRUE)
> samples<-cbind(samples,s)
> n<-c(n,paste('s',i))
> colnames(samples)=n
> s.means<-apply(samples,2,mean)
> s.vars<-apply(samples,2,var)
> s.dev<-apply(samples,2,sd)

```

```
> #Q3
> samplemean<-mean(s.means)
> sampledev<-sd(s.means)
Error in var(if (is.vector(x)
  object 'means' not found
> sampledev<-sd(s.means)
> popmn
[1] 2.468
> samplemean
[1] 2.503333
> pop_dev
[1] 0.2561069
> sampledev
[1] NA
> truesd=popsd/6
```