IT24102555

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PS Labsheet 08

IT24102555.R

Source on Save | Run | Source

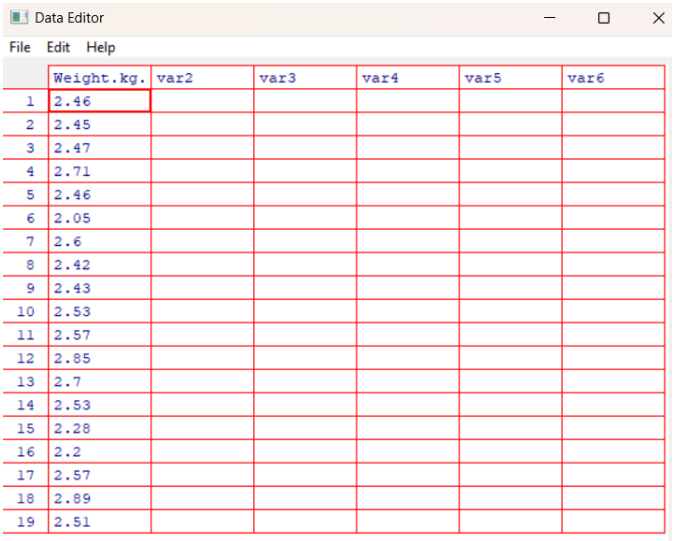
```r
setwd("C:\\Users\\IT24102555\\Downloads\\IT24102555")

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

#Q1
popmn<-mean(weight.kg.)
popvar<-var(weight.kg.)
pop_dev <- sd(weight.kg.)
```

Environment | History | Connections | Tutorial

Import Dataset | 154 MiB | List

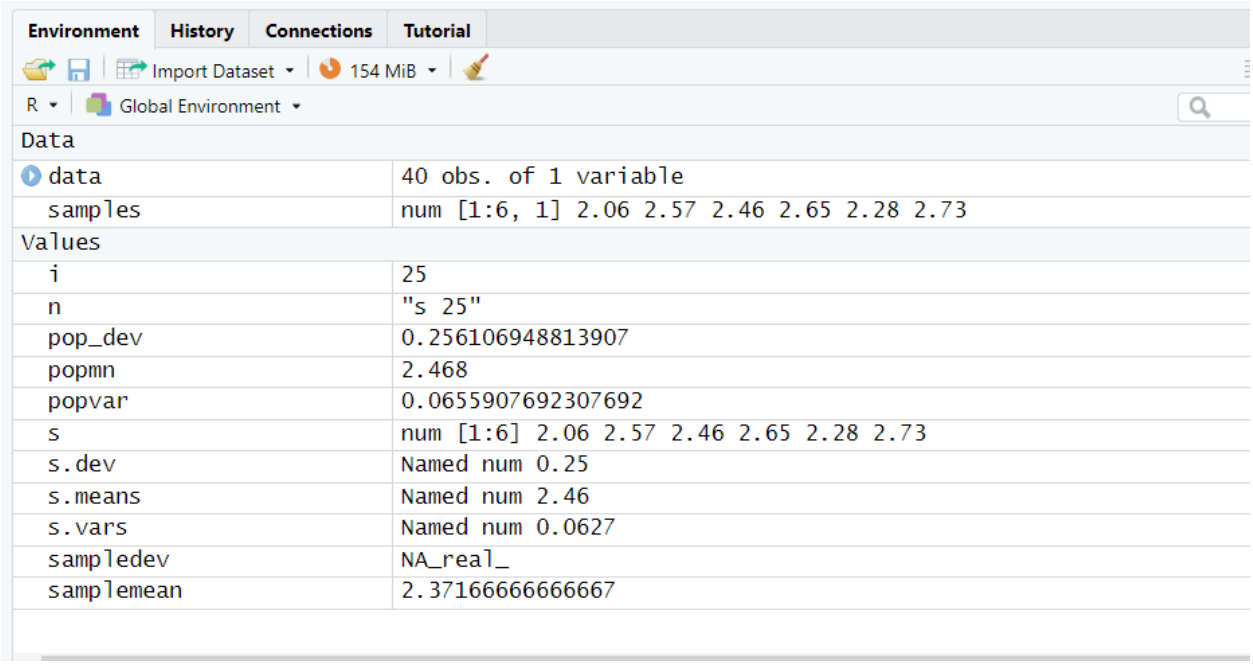
R | Global Environment

Data	
data	40 obs. of 1 variable
samples	num [1:6, 1] 2.23 2.43 2.47 2.46 2.17 2.47
Values	
i	25
n	"s 25"
pop_dev	0.256106948813907
popmn	2.468
popvar	0.0655907692307692
s	num [1:6] 2.23 2.43 2.47 2.46 2.17 2.47
s.dev	Named num 0.135
s.means	Named num 2.37
s.vars	Named num 0.0183
sampledev	NA_real_
samplemean	2.37166666666667



	Weight.kg.	var2	var3	var4	var5	var6
1	2.46					
2	2.45					
3	2.47					
4	2.71					
5	2.46					
6	2.05					
7	2.6					
8	2.42					
9	2.43					
10	2.53					
11	2.57					
12	2.85					
13	2.7					
14	2.53					
15	2.28					
16	2.2					
17	2.57					
18	2.89					
19	2.51					

```r

#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)
```



Environment | History | Connections | Tutorial

Import Dataset | 154 MiB

R | Global Environment

Data	
data	40 obs. of 1 variable
samples	num [1:6, 1] 2.06 2.57 2.46 2.65 2.28 2.73
Values	
i	25
n	"s 25"
pop_dev	0.256106948813907
popmn	2.468
popvar	0.0655907692307692
s	num [1:6] 2.06 2.57 2.46 2.65 2.28 2.73
s.dev	Named num 0.25
s.means	Named num 2.46
s.vars	Named num 0.0627
sampledev	NA_real_
samplemean	2.37166666666667

```
27 #Q3
28 samplemean<-mean(s.means)
29 sampledev<-sd(s.means)
30
31 popmn
32 samplemean
33
34 pop_dev
35 sampledev
```

Environment | History | Connections | Tutorial

Import Dataset | 154 MiB | List

R | Global Environment

Data	
data	40 obs. of 1 variable
samples	num [1:6, 1] 2.06 2.57 2.46 2.65 2.28 2.73
Values	
i	25
n	"s 25"
pop_dev	0.256106948813907
popmn	2.468
popvar	0.0655907692307692
s	num [1:6] 2.06 2.57 2.46 2.65 2.28 2.73
s.dev	Named num 0.25
s.means	Named num 2.46
s.vars	Named num 0.0627
sampledev	NA_real_
samplemean	2.45833333333333

Console | Terminal | Background Jobs

R 4.2.2 · C:/Users/IT24102555/Downloads/IT24102555/

```
> 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
[1] 2.468
> samplemean
[1] 2.405
> pop_dev
[1] 0.2561069
> sampledev
[1] NA
```