MV\_2

we will need the following libraries: mvtnorm, MASS, pracma

## Question 1

first of all, we need to upload the data:

data<-read.csv(choose.files(),header=T) #uploading the data  
group1<-data[1:115,-1] #data of group 1  
group2<-data[116:230,-1] #data of group 2

We know that the MLE for the expectation is the average of the population:  
$$\hat{\mu}=\bar{x}$$  
Therefore:

(mu1<-colMeans(group1)) #estimate expectation of group 1

## V1 V2 V3 V4 V5   
## -0.063532159 0.065180730 0.027293872 -0.132167697 -0.042634169   
## V6 V7 V8 V9 V10   
## -0.029530654 -0.018220567 -0.269903340 0.080159791 -0.006592466

(mu2<-colMeans(group2)) #estimate expectation of group 1

## V1 V2 V3 V4 V5 V6 V7   
## 1.0351219 1.2751972 1.2116342 1.1544727 1.0645012 1.0716831 1.0354589   
## V8 V9 V10   
## 0.9724618 0.9781849 0.9427868