# Assignment (5.1) 23- Dec 2017

1. How many vowels are there in the names of USA States?

**Sol :-** us1<-c('a','e','i','o','u')

us2<- rep(0, times = 5)

input<- data.frame (us1, us2)

states = rownames(USArrests)

for(i in 1:50){

test <-states[i]

n <- nchar(test)

test <- strsplit(test,"")

temp <- test[[1]]

k <- 1

while(k <= n){

if( temp[k] == 'a' || temp[k] == 'A' )

{input[1,2]=input[1,2]+1}

if( temp[k] == 'e' || temp[k] == 'E' )

{input[2,2]=input[2,2]+1}

if( temp[k] == 'i' || temp[k] == 'I' )

{input[3,2]=input[3,2]+1}

if( temp[k] == 'o' || temp[k] == 'O' )

{input[4,2]=input[4,2]+1}

if( temp[k] == 'u' || temp[k] == 'U' )

{input[5,2]=input[5,2]+1}

k <- k + 1

}

}

View (input)  **# See the result**

1. Visualize the vowels distribution.

**Sol :-**  barplot(input$us2,names.arg = c('A','E','I','O','U'),xlab = "Vowels",ylab="Frequency", col = c(6,2,3,4,5))