ACADGILD

Session 5: Data Management Using R

Assignment 1

1. Problem Statement

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

```
library(dplyr)
library(tidyr)
States <- rownames(USArrests)
x <- c('a','e','i','o','u')
x
y <- rep(0,times=5)
y
input <- data.frame(x,y)
input

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
 }
}
print(input)
```

Solution : OutPut

```
> print(input)
  x  y
1 a 61
2 e 28
3 i 44
4 o 36
5 u  8
```

2. Visualize the vowels distribution.

Solution :

```
barplot(input$y,names.arg = c('A','E','I','O','U'),xlab =
"Vowels",ylab="Frequency",col = "Orange")
```

OutPut