**Assignment 5.1**

**Problem Statement**

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

**Answer**:

data("USArrests")

View(USArrests)

str(USArrests)

head(USArrests)

states=rownames(USArrests)

states

library(stringr)

str\_count(states,"a")

vowels = c("a", "e", "i", "o", "u")

# vector for storing results

num\_vowels = vector(mode = "integer", length = 5)

# calculate number of vowels in each name

for (j in seq\_along(vowels)) {

num\_aux = str\_count(tolower(states), vowels[j])

num\_vowels[j] = sum(num\_aux)

}

# add vowel names

names(num\_vowels) = vowels

# total number of vowels

num\_vowels

## a e i o u

## 61 28 44 36 8

**# 2 Question: Visualize the vowels distribution.**

**#Output:**

barplot(num\_vowels, main = "Number of vowels in USA States names",

border = NA,col="red", ylim = c(0, 80))