**INTRODUCTION TO R**

**Session 5 – Data Management using R**

**Assignment - 1**

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PROBLEM STATEMENT

Question 5.1) How many vowels are there in the names of USA states?

Answer

states <-c("alabama","alaska","arizona","arkansas","california","colorado","connecticut","delaware","florida","georgia","hawaii","idaho","illinois","indiana","iowa","kentucky","louisiana","maine","maryland","massachusetts","michigan","minnesota","mississippi","montana","nebraska","nevada","new hampshire","new jersey","new mexico","new york","north carolina","north dakota","ohio","oklahoma","oregon","pennsylvania","rhode island","south carolina","south dakota","tennessee","texas","utah","vermont","virginia","washington","west virginia","winsconsin","wyoming")  
library(stringi)  
library(stringr)

|  |
| --- |
| > vowela <- str\_count(states,"a")  > vowela  [1] 4 3 2 3 2 1 0 2 1 1 2 1 0 2 1 0 2 1 2 2 1 1 0 2 2 2 1 0 0 0 2 2 0 2 0  [36] 2 1 2 2 0 1 1 0 1 1 1 0 0  > vowele <- str\_count(states, "e")  > vowele  [1] 0 0 0 0 0 0 1 2 0 1 0 0 0 0 0 1 0 1 0 1 0 1 0 0 1 1 2 3 2 1 0 0 0 0 1  [36] 1 1 0 0 4 1 0 1 0 0 1 0 0  >  > voweli <- str\_count(states, "i")  > voweli  [1] 0 0 1 0 2 0 1 0 1 1 2 1 3 2 1 0 2 1 0 0 2 1 4 0 0 0 1 0 1 0 1 0 1 0 0  [36] 1 1 1 0 0 0 0 0 3 1 3 2 1  >  > vowelo <- str\_count(states, "o")  > vowelo  [1] 0 0 1 0 1 3 1 0 1 1 0 1 1 0 1 0 1 0 0 0 0 1 0 1 0 0 0 0 1 1 2 2 2 2 2  [36] 0 1 2 2 0 0 0 1 0 1 0 1 1  >  > vowelu <- str\_count(states, "u")  > vowelu  [1] 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  [36] 0 0 1 1 0 0 1 0 0 0 0 0 0 |
|  |
| |  | | --- | | > sum(vowela)  [1] 59  >  > sum(vowele)  [1] 28  >  > sum(voweli)  [1] 42  >  > sum(vowelo)  [1] 35  >  > sum(vowelu)  [1] 7  > part <- sum(sum(vowela),sum(vowele),sum(voweli),sum(vowelo),sum(vowelu))  > part  [1] 171 | |

Question 2. Visualize the vowels distribution.

grap <- c(sum(vowela),sum(vowele),sum(voweli),sum(vowelo),sum(vowelu))

barplot(grap,col="blue")

