Date: 7th Jan 2019

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

```
library(stringr)
#lets count all the vowels
# vector of vowels
vowels = c("a", "e", "i", "o", "u")
#this starts five counters at the same time
num_vowels = vector(mode = "integer", length = 5)
for (j in seq_along(vowels)) {
  num_aux = str_count(tolower(states), pattern = vowels[j])
  num_vowels[j] = sum(num_aux)
}
# add vowel names
names(num_vowels) = vowels
# total number of vowels
num_vowels
```

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+ }
> # add vowel names
> names(num_vowels) = vowels
> # total number of vowels
> num_vowels
 a  e  i  o  u
61 28 44 36  8
> |
```

2. Visualize the vowels distribution.

```
barplot(num_vowels,main = "Number of vowels in USA States names",
     border = "red", xlab ="vowels", ylab="count_vowels", ylim = c(0, 80))
```