Instructor:

Mr. Samyan Qayyum Wahla

Learning Objectives:

- To get familiar with string manipulation

CLO:

Registration Number:

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Name:

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Guidelines/Instructions:

- Use of NetBeans is must in this lab.
- Write well commented code.
- Name of variables should be meaningful.
- Use camel case for the naming convention
- Code should be well formatted
- Create meaningful variable names. Add comments for readability. Indent each line of your code.
- Plagiarism/Cheating is highly discouraged by penalizing to both who tried and one who shared his/her code.

Reading Content:

Task-1

Write a code that contains the following functions:

int wordCounter(String s) that takes in a string as a parameter and returns the number of words in the string (hint: you can count spaces).

int vowelcounter(String s) that takes in a string as a parameter and returns the total number of vowels in the string. You need to account for upper and lowercase letters.

intpuncCount(String s) that takes in a string as a parameter and returns the number of punctuation characters in the string

bool findSubString(String s, String sub) that takes in a string as a parameter and returns 1 if the string "the" is a part of the string and 0 if it is not

In the main function, accept a newline terminated string from the user. Then, print all the 4 statistics of the string.

```
Enter the string:
Maybe a story will cheer you up: Once upon a time, there was an ugly barnacle. It was so ugly,
that everyone died. The end.
Number of words: 25
Number of vowels: 38
Number of punctuations: 6
 "the" is a part of this string.
```

Task-2

Write a program that will prompt the user to enter a sentence (string data), read that entire sentence into your program as a single string, and then finally process the string by calling the method specified **String displayVertical()**. You must process the sentence by calling the method rather than processing the string directly in your main method.

```
Please enter a sentence:
Hey there!
Your sentence printed vertically is:
H
e
y
t
h
e
r
e
!
```

Task-3

Write a function **String ridMultipleBlank(String s)** that take user string input and remove the multiple blank spaces.

```
InputString:
The   quick  brown  fox        jump.

The quick brown fox jump.
```

Write a function **String removeInteger(String s)** that take user string input and remove number if the input string contains number

```
Input String:
He is78 a go23od Prog97ram08er!

He is a good programmer!
```

Now create the function **String stringEncryption(String s)**, which takes a long string on input and produces a short encrypted string on output:

```
Input String:
Programs must be written for people to read, and only incidentally for machines to execute

H1Q2B3F4J5
```

Task 4

Create a new class **MyString**, that will be inherited from String class. Add at least 7 string manipulation functions in it.
Show the usage of all these functions with Javadoc.

What to submit

Students are required to submit link to github repository.