

Git and GitHub.

Before starting the lab, go to GitHub by using your account and create your private repositories called CS102_lab06. Whenever you are done with one of the following parts of the lab you will need to add all of your changes, commit them and push them to corresponding **private** and remote repositories. Make sure that your repositories are indeed private, because if they are not then anyone on the web will be able to copy your homework, which will get you into trouble. For every part of the lab you should have at least one commit that has a clear message what was implemented in that commit and for which part.

To solve the core problem you are not allowed to use loops, you can only use for secondary purposes such as printing the characters of an array etc.

1. Count the length of the string that is given using recursion.

Example:

Input: "CS102 is the best"

Output: 17

2. Find the number of non-vowels in a given array of characters / string using recursion. We do not care about the case(upper or lower) in this problem.

Input: "CS102 is a good course"

Output: 8

3. Generate all binary strings of length n (that is your input) without 1's that come together using recursion.

Examples:

Input: n = 3

Output: 101

100

010

001

000

Input: n = 4

Output: 1010

1001

1000

0101

0100

0010

0001

0000

4. (d) Write a recursive method to find the number of files on your computer's disk for a given directory. Note that a directory may also contain subdirectories. Hint: Check the

File class from the below link. In particular look at the `listFiles()`, `isFile()` and `isDirectory()` methods, plus the `File(String directory)` constructor.
<http://docs.oracle.com/javase/8/docs/api/java/io/File.html>