

CSC 1302 Principles of Computer Science II

Lab 4: Loops and String Practice

(Due on 11:59 pm, 6/18/2021)

Purpose:

In this assignment, you will practice how to use while-loop and scanner class in Java. When defining your methods, you will use loops and operations on numbers/strings to complete some specific tasks.

Task1:

Write a java program called CountDigits that has two methods: *main()* and *int countDigit(int n)*. The *main()* ask user to input a number and call *countDigit(int n)* to print the number of digits in the inputted number.

Sample Expected Output of Task 1:

```
<terminated> Lab3_CountDigits [Java Application] /Library/Java/JavaVirtualMachines/jdk-13.0.1.jdk/Contents/Home/bin/java (Jun 12, 2020, 9:35:34 PM)
Please input a number: 3344
There are 4 digits in the number of 3344
```

Task2: Write a java program to use scanner class to input your full name. If the input is a legit name that doesn't start with numbers (hint, using charAt and ASCII code), print out the length of the input name.

Sample Expected Output of Task 2:

```
<terminated> Lab_4_task2 [Java Application] /Library/Java/JavaVirtualMachines/jdk-13.0.1.jdk/Contents/Home/bin/java (Jun 14, 2020, 8:51:31 PM)
Enter your name:
chengzong peng
My name is chengzong peng
The string length of 'chengzong peng' is: 14
```

Criteria:

1. Upload all of the .java and the .class files to the CSc1302 dropbox on <http://college.gsu.edu>.

2. Your assignment will be graded based on the following criteria: (a) Are your programs runnable without errors? (b) Do your programs complete the tasks with specified outputs? (c) Do you follow the specified rules to define your methods and programs? (d) Do you provide necessary comments include the programmer information, date, title of the program and brief description of the program.
3. Please comment the important lines in the .java file as shown in the template. The important lines including but not limited to i) variables, ii) for-loop, iii) while-loop, iv) if-else statement, iv) methods. Please use your own words to describe what is your purpose to write this line. A .java file without comment will be graded under a **40%** penalty.
4. Make sure that both the .java and .class files are named and uploaded to icollege correctly. If any special package is used in the program, be sure to upload the package too. Should you use any other subdirectory (whatsoever) your program would not be graded, and you will receive a **0 (zero)**.
5. No copying allowed. If it is found that students copy from each other, all of these programs will get **0**.