

## **CSCD 210**

### **Loops Lab**

#### **PROGRAM SPECIFICATIONS:**

The lab reads in a non-negative integer (1 or greater) from the user. The user is prompted with a menu of choices. The menu is displayed repetitively until the user chooses to quit.

The menu choices are:

1. Enter a new number
2. Print the number of odd digits, even digits and zeros in the integer
3. Print the prime numbers between 2 and the integer (inclusive)
4. Quit the program

#### **PROGRAM PARTICULARS:**

- After the user enters a positive integer, the above menu is displayed. Remember the user can choose to do #2 and #3 on the same number. Meaning, once you have the number from the user do not make the user enter a new number each time. The user can keep the same number until the user selects option 1.
- There must be error checking on the input integer: if it is negative or 0, the program will print an error message and re-prompt. This process will continue until valid input is entered. You may assume an integer of some form will be entered by the user.
- There must be error checking on the menu choice entered: if the user enters a choice not on the menu, the program will print an error message, re-display the menu and re-prompt. This process will continue until valid input is entered. You must use a do while for this input checking.
- You may assume that no integer entered will be greater/smaller than -2 billion to +2 billion.

#### **TURN IN:**

A zip file containing:

- All your java code
- cscd210loopsabout.txt – at least 4 full sample runs of your program (choices 1 – 4 for each run)

Name your zip file your last name first letter of your first name loopslab.zip (Example:  
johnsonslab.zip