CSCD 255
Lab 5

PROGRAM SPECIFICATIONS:

Using the provided main, write the function code in lab5.c and the function headers in lab5.h.

The specifications are:

The user is prompted to read a *non-negative* integer (1 or greater).

Once a non-negative integer is read then, 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. Print the number in reverse order
5. Quit the program

PROGRAM PARTICULARS:

- I have provided main. When the program starts up, the user is asked for a positive integer. You must use a while loop ensure it is positive.
- After the user enters a positive integer, the above menu is displayed. Remember the user can choose to do #2, #3, and #4 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 keeps 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
- No string or array variables are allowed.
- No built-in methods for integer manipulation are allowed.
- You may assume that no integer entered will be greater/smaller than -2 billion to +2 billion.
- No break or continue statements other than those for the switch statement.

TURN IN:

A zip file containing

- Lab 5 and all your code
- cscd255lab5out.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 lab5.zip (Example: steinerslab5.zip)