Assignment 4

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CSC-1110

Section: \_\_\_\_\_\_

# **Assignment 4**

***COMPLETE THE HONOR CODE BELOW***

**HONOR CODE:**

I pledge that this program represents my own program code, I have received help from no one and I have given help to no one.

**OR**

I received help from **NAME OR NO ONE** in designing and debugging my program.

I have given help to **NAME OR NO ONE** in designing and debugging my program.

This assignment is required.

The grading form shows point values for this assignment. Please review it now.

Show screen shots of the python code with comments and your input/output window.

You should use several well-planned sets of data to check out your program. Testing your programs with just the data that is asked for in the assignment does not necessarily mean that the programs will work for all cases.

Please include the following comments in each of your Python programs:

Your Name

Section

Date

Description

Assignment Number

A python template (python\_template.py) has been provided for you to use.

Name this document XXX\_Assignment 4 where XXX are your initials. Include a python file named P01.py, P02.py, etc. for each problem.

## Write a program that asks the user for a number that is positive. If the number entered is not positive, then an error message is displayed, and the user is prompted to enter another number. This validation will continue until the user enters a valid positive number. When the user enters a valid number then the program prints to the console all cube values 1 to the number the user entered. Show screen shots of the PYTHON program, all input and output. Save this program.

Below is the input/output that you are to use for this problem:

Enter a positive number starting number: -3

Sorry, -3 is not a positive number. Try again!

Enter a positive number starting number: 0

Sorry, 0 is not a positive number. Try again!

Enter a positive number starting number: -7

Sorry, -7 is not a positive number. Try again!

Enter a positive number starting number: 10

1 and cube of 1 is: 1

2 and cube of 2 is: 8

3 and cube of 3 is: 27

4 and cube of 4 is: 64

5 and cube of 5 is: 125

6 and cube of 6 is: 216

7 and cube of 7 is: 343

8 and cube of 8 is: 512

9 and cube of 9 is: 729

10 and cube of 10 is: 1000

Finished!

**PLACE SCREEN SHOTS OF THE PYTHON CODE AND ALL I/O BELOW.**

## Write a program that asks the user for a number no greater than 12 and no less than 3. Based on the number the user enters create a square where the number entered is the length of the square. If an invalid value is given, print out an error and prompt the user to try again. After displaying the square, ask the user if they want to create another square. Use ‘Y’ or ‘Yes’ as the correct response to continue or ‘N’ or ‘No’ to quit. Anything else is invalid and the user should be notified and asked to re-enter their selection. When the program has ended output the number of squares created.

Here's the input/output to use to show your program works:

Enter a number between 3 and 12: 1

Sorry, 1 is not in the range of 3 and 12. Try Again!

Enter a number between 3 and 12: 20

Sorry, 20 is not in the range of 3 and 12. Try Again!

Enter a number between 3 and 12: -15

Sorry, -15 is not in the range of 3 and 12. Try Again!

Enter a number between 3 and 12: 3

Here is your square!

XXX

XXX

XXX

Would like to create another? (Enter Y or Yes to continue or N or No to Quit)

yes

‘yes’ is not a valid response. Please try again!

Would like to create another? (Enter Y or Yes to continue or N or No to Quit)

Yes

Enter a number between 3 and 12: 50

Sorry, 50 is not in the range of 3 and 12. Try Again!

Enter a number between 3 and 12: 4

Here is your square!

XXXX

XXXX

XXXX

Would like to create another? (Enter Y or Yes to continue or N or No to Quit)

NO

‘NO’ is not a valid response. Please try again!

Would like to create another? (Enter Y or Yes to continue or N or No to Quit)

N

Thank you, you created 2 squares before quitting.

Comment your source code and describe your code to someone who may be viewing it for the first time.

**PLACE SCREEN SHOTS OF THE PYTHON CODE AND ALL I/O BELOW.**

## Write a program that asks a user to enter a starting value. Then the program will ask for an operation to perform on that number. The available operations are add, subtract, multiply, and division. The program will make sure a valid operation is selected. If there is not a valid operation chosen, then the program will notify the user and keep asking. When a valid operation is chosen then the user is asked to enter a number to perform the operation. The result of the operation is output to the screen and the user is prompted to enter the next operation to perform on the result followed by the value to use. The program will continue until a sentinel value of -999 is input.

Below is the input/output that you are to use.

Enter your starting number: -157

Enter A for Add, S for Subtract, M for multiply, or D for Divide to perform on -157 or enter -999 to end: add

Sorry, ‘add’ is not a valid operation. Try Again!

Enter A for Add, S for Subtract, M for multiply, or D for Divide to perform on -157 or enter -999 to end: Add

Sorry, ‘Add’ is not a valid operation. Try Again!

Enter A for Add, S for Subtract, M for multiply, or D for Divide to perform on -157 or enter -999 to end: A

Add -157 with what value: 357

The result is 200

Enter A for Add, S for Subtract, M for multiply, or D for Divide to perform on 200 or enter -999 to end: divide

Sorry, ‘divide’ is not a valid operation. Try Again!

Enter A for Add, S for Subtract, M for multiply, or D for Divide to perform on 200 or enter -999 to end: Divide

Divide 200 with what value: 100

The result is 2

Enter A for Add, S for Subtract, M for multiply, or D for Divide to perform on 200 or enter -999 to end: -999

Program ended with a result of 2

Comment your source code and describe your code to someone who may be viewing it for the first time.

**PLACE SCREEN SHOTS OF THE PYTHON CODE AND ALL I/O BELOW.**