Assignment Summary – HW_02a

Description: There are the two files: Triangle.py and TestTriangle.py
Triangle.py is a starter implementation of the triangle classification program.
TestTriangle.py contains a starter set of unittest test cases to test the classifyTriangle() function in the file Triangle.py file.

In order to determine if the program is correctly implemented, you will need to update the set of test cases in the test program. You will need to update the test program until you feel that your tests adequately test all of the conditions. Then you should run the complete set of tests against the original triangle program to see how correct the triangle program is. Capture and then report on those results in a formal test report described below. For this first part you should not make any changes to the classify triangle program. You should only change the test program. Based on the results of your initial tests, you will then update the classify triangle program to fix all defects. Continue to run the test cases as you fix defects until all of the defects have been fixed. Run one final execution of the test program and capture and then report on those results in a formal test report described below.

Author: Raj Palival

Summary: After making the necessary changes to the buggy Triangle.py the Unittest results were obtained as expected. After Running the TestTriangle.py on the buggy Triangle.py a lot of bugs were uncovered, some of them were uncovered at the time of inspecting the Triangle.py but unittest made things clear.
I learned that the order of unit testing is so important to solve lot of bugs, what I mean is that before jumping on to solve the main Triangle.py file it was a good instruction as to not try to solve the buggy code instead run the unittest file on it to uncover what's going on with the code.

Table 1: Test Run 1 shows the results of testing the **Initial** classifyTriangle () implementation.

Test ID	Input	Expected Results	Actual Result	Pass or Fail
01	(3,4,5)	Right	InvalidInput	Fail
	(5,3,4)	Right	InvalidInput	Fail
	(1,1,1)	Equilateral	InvalidInput	Fail
	(5,12,13)	Right	InvalidInput	Fail
	(3,4,5)	InvalidInput	InvalidInput	Pass

Table 2: Test Run 2 shows the results of testing the **Improved** classifyTriangle () implementation.

Test ID	Input	Expected Results	Actual Result	Pass or Fail
02	(3,4,5)	Right	Right	Pass
	(5,3,4)	Right	Scalene	Fail
	(1,1,1)	Equilateral	Equilateral	Pass
	(5,12,13)	Right	Right	Pass
	(3,4,5)	InvalidInput	Right	Fail

Table 3: Assignment Summary Matrix

	Test Run 1	Test Run 2
Tests Planned	5	5
Tests Executed	5	5
Tests Passed	1	3
Defects Found	4	0
Defects Fixed	4	0

Honor Pledge: I pledge my honor that I have abided by the Stevens Honor System.