

**Assignment Description:** Sometimes you will be given a program that someone else has written, and you will be asked to fix, update and enhance that program. In this assignment you will start with an existing implementation of the classify triangle program that will be given to you. You will also be given a starter test program that tests the classify triangle program, but those tests are not complete.

- These 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.

Note that you should NOT simply replace the logic with your logic from Assignment 1. Test teams typically don't have the luxury of rewriting code from scratch and instead must fix what's delivered to the test team.

*[Triangle.py](#) contains an implementation of the classifyTriangle() function with a few bugs.*

*[TestTriangle.py](#) contains the initial set of test cases*

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**Summary:** There were many bugs in the initial Triangle code, some of which were discovered through the tests and others were found while reading through the code.

The assignment was completed without trouble.

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

**Detailed results, if any:**

Part 1

Test ID	Input	Expected Results	Actual Results	Pass or Fail
testRightTriangleA	3,4,5	Right	InvalidInput	Fail
testRightTriangleB	5,3,4	Right	InvalidInput	Fail
testEquilateralTriangles	1,1,1	Equilateral	InvalidInput	Fail
testIsoscelesTriangles	2,2,1	Isosceles	InvalidInput	Fail
testScaleneTriangles	2,5,6	Scalene	InvalidInput	Fail
testNonTriangles	3,2,6	NotATriangle	InvalidInput	Fail
testInvalidInput	'a','b','c'	InvalidInput	Error	Error

Part 2

Test ID	Input	Expected Results	Actual Results	Pass or Fail
testRightTriangleA	3,4,5	Right	Right	Pass
testRightTriangleB	5,3,4	Right	Right	Pass
testEquilateralTriangles	1,1,1	Equilateral	Equilateral	Pass
testIsoscelesTriangles	2,2,1	Isosceles	Isosceles	Pass
testScaleneTriangles	2,5,6	Scalene	Scalene	Pass

testNonTriangles	3,2,6	NotATriangle	NotATriangle	Pass
testInvalidInput	'a','b','c'	InvalidInput	InvalidInput	Pass

	Test Run 1	Test Run 2
Tests Planned	7	7
Tests Executed	6	7
Tests Passed	0	7
Defects Found	6	0
Defects Fixed	0	6