

Assignment Description:

I started with an outdated, flawed triangle categorization for this work. I added the necessary test cases to the unit testing program and fixed the errors till the application was functional.

Sanika More

Summary:

Using my test program, I found 6 flaws. With a program like this, where there are numerous potential outputs, using a unit test program is beneficial. It is simpler to isolate the issue when you can see which tests are failing.

Summary Matrix

	Test Run 1	Test Run 2	Test Run 3
Tests Planned	13	13	13
Tests Executed	13	13	13
Tests Passed	0	7	13
Defects Found	6	0	0
Defects Fixed	5	1	0

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

Detailed Results:

Testing Legacy Program's Defects:

Test ID	Input	Expected Results	Actual Result	Pass Or Fail
testScaleneTriangles	5 7 1	Scalene	InvalidInput	Fail
testScaleneTriangles2	10 3 5	Scalene	InvalidInput	Fail
testRightTriangles	3 4 5	Right	InvalidInput	Fail
testRightTriangles2	5 3 4	Right	InvalidInput	Fail
testRightTriangles3	4 5 3	Right	InvalidInput	Fail
testEquilateralTriangles	1 1 1	Equilateral	InvalidInput	Fail
testEquilateralTriangles2	3 3 3	Equilateral	InvalidInput	Fail
testIsoscelesTriangles	5 5 1	Isosceles	InvalidInput	Fail
testIsoscelesTriangles2	5 1 5	Isosceles	InvalidInput	Fail
testIsoscelesTriangles3	1 5 5	Isosceles	InvalidInput	Fail
testInvalidTriangles	1 3 5	NotATriangle	InvalidInput	Fail
testInvalidTriangles2	1 4 5	NotATriangle	InvalidInput	Fail
testInvalidTriangles3	1 0 1	NotATriangle	InvalidInput	Fail

After Fixing Defects:

```
>python -m unittest TestTriangle
.....
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Ran 13 tests in 0.007s

OK
```

Test ID	Input	Expected Results	Actual Result	Pass Or Fail
testScaleneTriangles	5 7 1	Scalene	Scalene	Pass
testScaleneTriangles2	10 3 5	Scalene	Scalene	Pass
testRightTriangles	3 4 5	Right	Right	Pass
testRightTriangles2	5 3 4	Right	Right	Pass
testRightTriangles3	4 5 3	Right	Right	Pass
testEquilateralTriangles	1 1 1	Equilateral	Equilateral	Pass
testEquilateralTriangles2	3 3 3	Equilateral	Equilateral	Pass
testIsoscelesTriangles	5 5 1	Isosceles	Isosceles	Pass
testIsoscelesTriangles2	5 1 5	Isosceles	Isosceles	Pass
testIsoscelesTriangles3	1 5 5	Isosceles	Isosceles	Pass
testInvalidTriangles	1 3 5	NotATriangle	NotATriangle	Pass
testInvalidTriangles2	1 4 5	NotATriangle	NotATriangle	Pass
testInvalidTriangles3	1 0 1	NotATriangle	NotATriangle	Pass

<https://github.com/SANIKA1809/Triangle567sm.git>