

GitHub Link: <https://github.com/Brandon-Seidman/TriangleHW2/tree/HW05>

Assignment Description: The objective of this assignment is to apply the techniques from the lecture to static testing of your Triangles program. Specifically:

- You will run a static code analyzer on your code, e.g. Pylint, identify and fix any problems reported by the static code analyzer;
- You will run a code coverage tool on your code, e.g. Coverage.py, and extend your test cases to demonstrate at least 80% code coverage;

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Summary: I used pylint and coverage.py to analyze and update my triangle code to make sure that it conforms to standards and is testing correctly and effectively. At first when I ran both of these tests, I was seeing many issues in pylint but started out with an overall 96% coverage. I worked at updating everything within pylint and got it to the point where I received a 10 on the _triangle.py and a 9.88 on the testtriangle.py. This also boosted up my coverage score resulting in me receiving an overall 99% in coverage.

Reflection: I thought the assignment was very interesting and gave me a good understanding of QA tools used in the real world. I think coverage is great and will definitely be using that on many of my future projects, but I did have some trouble with pylint asking to fix things such as lines of code being too long or using camelCase rather than _snake_case. However, there were a lot of ways that it did prove itself very useful such as catching repeated or unnecessary code.

Detailed Results:

-Final Output:

```
~/documents/github/trianglehw2 — zsh
[brandon@Brandons-MBP trianglehw2 % pylint _triangle.py
-----
Your code has been rated at 10.00/10 (previous run: 10.00/10, +0.00)

[brandon@Brandons-MBP trianglehw2 % pylint testtriangle.py
***** Module testtriangle
testtriangle.py:33:0: R0904: Too many public methods (30/20) (too-many-public-methods)

-----
Your code has been rated at 9.88/10 (previous run: 9.88/10, +0.00)

[brandon@Brandons-MBP trianglehw2 % coverage run TestTriangle.py
Running unit tests
.....
-----
Ran 30 tests in 0.002s

OK
[brandon@Brandons-MBP trianglehw2 % coverage report -m
Name      Stmts   Miss  Cover   Missing
TestTriangle.py    82      0   100%
_triangle.py     21      1    95%    39
-----
TOTAL          103      1   99%
brandon@Brandons-MBP trianglehw2 %
```

-Unedited Output:

```
~/documents/github/trianglehw2 — zsh

[brandon@Brandons-MBP trianglehw2 % pylint triangle.py
*****
Module triangle
triangle.py:40:0: W0301: Unnecessary semicolon (unnecessary-semicolon)
triangle.py:52:0: C0301: Line too long (111/100) (line-too-long)
triangle.py:12:0: C0103: Function name "classifyTriangle" doesn't conform to snake_case naming style (invalid-name)
triangle.py:12:0: C0103: Argument name "a" doesn't conform to snake_case naming style (invalid-name)
triangle.py:12:0: C0103: Argument name "b" doesn't conform to snake_case naming style (invalid-name)
triangle.py:12:0: C0103: Argument name "v" doesn't conform to snake_case naming style (invalid-name)
triangle.py:50:4: R1705: Unnecessary "elif" after "return" (no-else-return)
triangle.py:12:0: R0911: Too many return statements (8/6) (too-many-return-statements)

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Your code has been rated at 5.00/10 (previous run: 9.50/10, -4.50)

[brandon@Brandons-MBP trianglehw2 % pylint testtriangle.py
*****
Module testtriangle
testtriangle.py:21:0: C0301: Line too long (102/100) (line-too-long)
testtriangle.py:24:0: C0301: Line too long (116/100) (line-too-long)
testtriangle.py:27:0: C0301: Line too long (122/100) (line-too-long)
testtriangle.py:30:0: C0301: Line too long (148/100) (line-too-long)
testtriangle.py:33:0: C0301: Line too long (113/100) (line-too-long)
testtriangle.py:41:0: C0301: Line too long (112/100) (line-too-long)
testtriangle.py:44:0: C0301: Line too long (146/100) (line-too-long)
testtriangle.py:47:0: C0301: Line too long (166/100) (line-too-long)
testtriangle.py:50:0: C0301: Line too long (166/100) (line-too-long)
testtriangle.py:53:0: C0301: Line too long (118/100) (line-too-long)
testtriangle.py:56:0: C0301: Line too long (109/100) (line-too-long)
testtriangle.py:64:0: C0301: Line too long (106/100) (line-too-long)
testtriangle.py:67:0: C0301: Line too long (110/100) (line-too-long)
testtriangle.py:70:0: C0301: Line too long (133/100) (line-too-long)
testtriangle.py:73:0: C0301: Line too long (105/100) (line-too-long)
testtriangle.py:81:0: C0301: Line too long (104/100) (line-too-long)
testtriangle.py:84:0: C0301: Line too long (116/100) (line-too-long)
testtriangle.py:87:0: C0301: Line too long (138/100) (line-too-long)
testtriangle.py:90:0: C0301: Line too long (138/100) (line-too-long)
testtriangle.py:93:0: C0301: Line too long (133/100) (line-too-long)
testtriangle.py:96:0: C0301: Line too long (107/100) (line-too-long)
testtriangle.py:104:0: C0301: Line too long (108/100) (line-too-long)
testtriangle.py:107:0: C0301: Line too long (108/100) (line-too-long)
testtriangle.py:110:0: C0301: Line too long (109/100) (line-too-long)
testtriangle.py:113:0: C0301: Line too long (108/100) (line-too-long)
testtriangle.py:116:0: C0301: Line too long (109/100) (line-too-long)
testtriangle.py:17:0: C0115: Missing class docstring (missing-class-docstring)
testtriangle.py:20:4: C0103: Method name "testNotATriangle1" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:20:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:23:4: C0103: Method name "testNotATriangle2" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:23:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:26:4: C0103: Method name "testNotATriangle3" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:26:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:29:4: C0103: Method name "testNotATriangle4" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:29:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:32:4: C0103: Method name "testNotATriangle5" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:32:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:37:4: C0103: Method name "testEquilateralTriangle1" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:37:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:40:4: C0103: Method name "testEquilateralTriangle2" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:40:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:43:4: C0103: Method name "testEquilateralTriangle3" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:43:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:46:4: C0103: Method name "testEquilateralTriangle4" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:46:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:49:4: C0103: Method name "testEquilateralTriangle5" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:49:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:52:4: C0103: Method name "testEquilateralTriangle6" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:52:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:55:4: C0103: Method name "testEquilateralTriangle7" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:55:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:60:4: C0103: Method name "testRightTriangle1" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:60:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:63:4: C0103: Method name "testRightTriangle2" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:63:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:66:4: C0103: Method name "testRightTriangle3" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:66:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:69:4: C0103: Method name "testRightTriangle4" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:69:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:72:4: C0103: Method name "testRightTriangle5" doesn't conform to snake_case naming style (invalid-name)
```

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~/documents/github/trianglehw2 --zsh
testtriangle.py:23:4: C0103: Missing function or method docstring (missing-function-docstring)
testtriangle.py:26:4: C0103: Method name "testNotATriangle3" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:26:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:29:4: C0103: Method name "testNotATriangle4" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:29:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:32:4: C0103: Method name "testNotATriangle5" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:32:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:37:4: C0103: Method name "testEquilateralTriangle1" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:37:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:40:4: C0103: Method name "testEquilateralTriangle2" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:40:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:43:4: C0103: Method name "testEquilateralTriangle3" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:43:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:46:4: C0103: Method name "testEquilateralTriangle4" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:46:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:49:4: C0103: Method name "testEquilateralTriangle5" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:49:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:52:4: C0103: Method name "testEquilateralTriangle6" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:52:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:55:4: C0103: Method name "testEquilateralTriangle7" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:55:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:60:4: C0103: Method name "testRightTriangle1" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:60:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:63:4: C0103: Method name "testRightTriangle2" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:63:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:66:4: C0103: Method name "testRightTriangle3" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:66:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:69:4: C0103: Method name "testRightTriangle4" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:69:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:72:4: C0103: Method name "testRightTriangle5" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:72:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:77:4: C0103: Method name "testScaleneTriangle1" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:77:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:80:4: C0103: Method name "testScaleneTriangle2" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:80:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:83:4: C0103: Method name "testScaleneTriangle3" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:83:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:86:4: C0103: Method name "testScaleneTriangle4" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:86:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:89:4: C0103: Method name "testScaleneTriangle5" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:89:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:92:4: C0103: Method name "testScaleneTriangle6" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:92:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:95:4: C0103: Method name "testScaleneTriangle7" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:95:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:100:4: C0103: Method name "testIsoscelesTriangle1" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:100:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:103:4: C0103: Method name "testIsoscelesTriangle2" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:103:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:106:4: C0103: Method name "testIsoscelesTriangle3" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:106:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:109:4: C0103: Method name "testIsoscelesTriangle4" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:109:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:112:4: C0103: Method name "testIsoscelesTriangle5" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:112:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:115:4: C0103: Method name "testIsoscelesTriangle6" doesn't conform to snake_case naming style (invalid-name)
testtriangle.py:115:4: C0116: Missing function or method docstring (missing-function-docstring)
testtriangle.py:17:0: R0904: Too many public methods (30/20) (too-many-public-methods)

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Your code has been rated at -3.33/10 (previous run: 9.88/10, -13.21)

|brandon@Brandons-MBP trianglehw2 % coverage run TestTriangle.py
Running unit tests
.....
Ran 30 tests in 0.002s

OK
|brandon@Brandons-MBP trianglehw2 % coverage report -m
Name     Stmts  Miss  Cover  Missing
-----
TestTriangle.py    67      0   100%
Triangle.py      17      3   82%   32, 35, 40
-----
TOTAL            84      3   96%
brandon@Brandons-MBP trianglehw2 %

```

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