

# HW 05 - Static Code Analysis

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**Summary:** After the code analyzer has been run on the original program, any unnecessary indentation, spaces, and variable renaming are removed to make the code more readable and executable. The static value was filled once this was done. Therefore, 99% coverage is promised.

## 1. The GitHub URL containing the code that was analyzed

URL: <https://github.com/amithvishnu/HW05>

## 2. The name and output of the static code analyzer tool you used:

The tool used for the static code analyzer is Pylint.

## Initial Output (Before making the changes to the code)

```
pylint x
C:\Users\Amith_Vish\PycharmProjects\PyLint\venv\Scripts\pylint.exe C:\Users\Amith_Vish\PycharmProjects\HW02a\PyLint\main.py
***** Module main
main.py:25:0: C0304: Final newline missing (missing-final-newline)
main.py:1:0: C0114: Missing module docstring (missing-module-docstring)
main.py:3:0: C0116: Missing function or method docstring (missing-function-docstring)
main.py:3:0: C0103: Function name "classifyTriangle" doesn't conform to snake_case naming style (invalid-name)
main.py:3:21: C0103: Argument name "a" doesn't conform to snake_case naming style (invalid-name)
main.py:3:24: C0103: Argument name "b" doesn't conform to snake_case naming style (invalid-name)
main.py:3:27: C0103: Argument name "c" doesn't conform to snake_case naming style (invalid-name)
main.py:18:4: R1705: Unnecessary "elif" after "return", remove the leading "el" from "elif" (no-else-return)
main.py:3:0: R0911: Too many return statements (8/6) (too-many-return-statements)

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Your code has been rated at 4.38/10 (previous run: 9.50/10, -5.12)

Process finished with exit code 24
|
```

**Final output: After the changes have been made.**

```
pylint
C:\Users\Amith_Vish\PycharmProjects\PyLint\venv\Scripts\pylint.exe C:\Users\Amith_Vish\PycharmProjects\HW02a\PyLint\main.py

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Your code has been rated at 10.00/10 (previous run: 9.00/10, +1.00)

Process finished with exit code 0
```

**3. The name and output of the code coverage tool you used : The tool used is coverage.py**

**Initial:** The initial coverage was 46%.

Module ↑	statements	missing	excluded	coverage
TestTriangle.py	54	25	0	55%
triangle.py	16	13	0	19%
<b>Total</b>	<b>70</b>	<b>38</b>	<b>0</b>	<b>46%</b>

**Final:** The final coverage is 99%, covering all the test cases.

<i>Module</i> ↑	<i>statements</i>	<i>missing</i>	<i>excluded</i>	<i>coverage</i>
testtriangle.py	57	0	0	100%
triangle_updated.py	21	1	0	94%
<b>Total</b>	<b>78</b>	<b>1</b>	<b>0</b>	<b>99%</b>

**4. Identify both your original test cases and new test cases that you created to achieve at least 80% code coverage.**

The code had to be 100% efficient per our first request, thus we modified it to that level And posted it as soon as we could run the test cases against the updated code and have Coverage of more than 80%. Efficiency of 99% was reached. After carefully analyzing The software using the several test cases from the Assignment, there was no need to Create additional test cases. It worked for me to make the necessary code corrections And post that everything was working as it should.

5. Attach screenshots of the output of the static code analyzer as well as code coverage. You should show a screenshot of the analysis results both before and after any changes that you make to your programs:

**I have attached the screenshot of the static code analysis and code coverage above before and after already above. Also uploaded the new versions of the code to the GitHub URL as per requirements.**