

## Assignment 7: Differential Testing

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One error found was actually in my testing suite. I had copied a section which converted between square > rectangle > rhombus > parallelogram > quadrilateral > kite. Due to this copy-paste error, the rhombus, parallelogram, and quadrilateral were all being classified as the default parallelogram resulting in a fuzzing error.

I also found that Tristan had added an assert to remove empty string inputs. This caused the program to abort although valid inputs and classifications followed. This assertion caused some tests to fail as they were because of leading white space. Tristan dealt with whitespace in a more direct manner than my program which ignores leading or trailing white space surrounding valid inputs. This should have caused an error 1 return rather than a full program abort. A blank line entry is an invalid input rather than a bug.

This assertion also caused an assertion fail at the end of every test regardless of whether a trailing line or newline was present:

Assertion failed: (input != ""), function main, file tmain.cpp, line 292.

Abort trap: 6

Although the files would match, the assertion caused false bugs to appear in fuzzing. I would have recommended removing this assertion.

### **Repo I am testing against:**

<https://github.com/rtkaratekid/QuadrilateralClassifierAssignment>

### **My repo:**

<https://github.com/nwintour/cs6015>