

Programming environment rule violations

I used this method throughout my program to test if an exception was thrown. Java has many exception handling methods that I utilized throughout random inputs. Java made this step very easy by surrounding the code in a try catch statement. If the program encountered a bit of code that threw an environmental rule violation, I simply caught the exception and saved the response in an ArrayList. This made it possible for the rest of my code to execute, and logged each exception, so I could go back and pinpoint the different locations the errors occurred.

Multiple Versions

I originally started this project in c++. It seemed reasonable for me to use the tools c++ had to make a quick and efficient quadrilateral classifier. I later realized as the project grew that switching the program to Java made more sense. Using Java, opened the world to new ways of processing the code, using less libraries, and splitting the program up into different classes. Having different classes made it possible to dig deeper into each segregated section and see how the code used input differently than c++.

Assertions

I made use of this oracle throughout the program by creating a log that internally checked within the methods themselves. If an if-statement failed, I logged the problem and stored it in an ArrayList. If these statements were logged, I was able to print them out and see where various statements failed within the method. I chose not to use the full Assert method, because I wanted to see the coverage of the code for the whole program. Using the Assertion method would have stopped the program where it failed, and I feel that the code coverage would have failed if I used the method.