SE 333 Software Testing

Assignment 1: Determining Types of Triangles

Part I: Due date: April 6, 2020, 11:59pm

There is an application with the following specifications:

1. Overall system service: assign a triangle type to any given input
2. Input is a single string containing values that represent shape side lengths. Example “3 3 3”
3. The delimiter between side length values is a space
4. The triangle type is determined using the following rules:
    a. The input must represent a valid triangle
        i. 3 sides only
        ii. Meets criteria of the Inequality Theorem
    b. 3 equal sides is an “equilateral” triangle
    c. 2 equal sides is an “isosceles” triangle
    d. All other legal triangles are “scalene” triangles
5. The application must only accept side lengths up to and including 500
6. The application outputs 2 things
    a. A status of “Ok” or “Error”
    b. When status == “Ok”, output the name of the triangle type found
    c. When status == “Error”, output the error cause.

Part 1 of the assignment is to design a test suite to **thoroughly** test this application. Start with the Excel template that is available in D2L. List all the test cases in your test suite. Each test case should include the input values and the expected output. Assign a unique id to each test case for reference purposes. For example

Test Case ID	Input	Expected Result	Actual Result	Verdict
T001	3 3 3	equilateral		

If you had to assume any implicit requirements, be sure to record them on the ‘Assumptions’ tab.

Part 2
This application exists at:
http://ec2-18-237-91-208.us-west-2.compute.amazonaws.com:3000/

1. Manually execute your test suite against this application and record the results in the spread sheet.

    a. Write detailed ‘actual results’ when the result does not meet expectations.
    b. Provide a verdict of ‘pass’ or ‘fail’
2. Write a separate document (Word or PDF, no handwritten documents) with an overall appraisal of the application:
    a. Is it fit for public release?
    b. If not, what defects need to be fixed first?
    c. What defects exist but are too minor to hold up release?
3. Submit your spreadsheet and appraisal document to D2L

Important note: The testing to be carried out in this assignment is manual testing, not automated testing using tools such as Junit. You are only required to submit written reports. You are *not* asked to write test cases in Junit.