**Team: Sonali\_Prabhjot\_Prateek\_Akshay**

**Assignment 02 - Report**

1. **Assignment Description**: Assignment 02 – Buggy Triangle

2. **Author(s)**:

Akshay Sunderwani

Sonali Patil

Prateek Tyagi

Prabhjot Singh

3. **Summary**:

Programming language: Python

GitHub link: <https://github.com/akshya672222/SSW567_Sonali_Prateek_Prabhjot_Akshay>

**Test Cases (Initial)**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test ID** | **Input** | **Expected Results** | **Actual Results** | **Pass or Fail** |
| 1 | a=5, b=3, c=5 | Isosceles | InvalidInput | Fail |
| 2 | a=5, b=5, c=5 | Equilateral | InvalidInput | Fail |
| 3 | a=6, b=4, c=5 | Scalene | InvalidInput | Fail |
| 4 | a=3, b=4, c=5 | Right | InvalidInput | Fail |
| 5 | a=a, b=4, c=5 | InvalidInput | InvalidInput | Pass |

**Test cases (After improvement: 1):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test ID** | **Input** | **Expected Results** | **Actual Results** | **Pass or Fail** |
| 1 | a=5, b=3, c=5 | Isosceles | NotATriangle | Fail |
| 2 | a=5, b=5, c=5 | Equilateral | NotATriangle | Fail |
| 3 | a=6, b=4, c=5 | Scalene | NotATriangle | Fail |
| 4 | a=3, b=4, c=5 | Right | NotATriangle | Fail |
| 5 | a=a, b=4, c=5 | InvalidInput | Error | Fail |

**Test cases (After improvement: 2):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test ID** | **Input** | **Expected Results** | **Actual Results** | **Pass or Fail** |
| 1 | a=5, b=3, c=5 | Isosceles | Scalene | Fail |
| 2 | a=5, b=5, c=5 | Equilateral | Equilateral | Pass |
| 3 | a=6, b=4, c=5 | Scalene | Scalene | Pass |
| 4 | a=5, b=4, c=3 | Right | Scalene | Fail |
| 5 | a=a, b=4, c=5 | InvalidInput | InvalidInput | Pass |
| 6 | a=3, b=5, c=5 | Right | Right | Pass |
| 7 | a=0, b=3, c=5 | InvalidInput | InvalidInput | Pass |
| 8 | a=4, b=4, c=2 | Isosceles | Equilateral | Fail |
| 9 | a=10, b=10, c=40 | NotATriangle | NotATriangle | Pass |
| 10 | a=10, b=15, c=10 | Isosceles | Scalene | Fail |

**Test cases (Final):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test ID** | **Input** | **Expected Results** | **Actual Results** | **Pass or Fail** |
| 1 | a=5, b=3, c=5 | Isosceles | Isosceles | Pass |
| 2 | a=5, b=5, c=5 | Equilateral | Equilateral | Pass |
| 3 | a=6, b=4, c=5 | Scalene | Scalene | Pass |
| 4 | a=4, b=5, c=3 | Right | Right | Pass |
| 5 | a=a, b=4, c=5 | Invalid Input | Invalid Input | Pass |
| 6 | a=200, b=5, c=3 | Not A Triangle | Not A Triangle | Pass |
| 7 | a=4, b=-1, c=3 | Invalid Input | Invalid Input | Pass |
| 8 | a=10, b=15, c=10 | Isosceles | Isosceles | Pass |
| 9 | a=10, b=10, c=40 | Invalid Input | Invalid Input | Pass |
| 10 | a=10, b=15, c=10 | Isosceles | Scalene | Fail |

4. **Team Member Roles and Contributions:**

Prateek: Set up the development environment.

Sonali: Wrote program for classify triangle.

Prabhjot: Wrote test cases for program.

Akshay: Created GitHub repository, filled report and committed code on repository.

5. **Honor pledge**

We pledge on our honor that we have not given or received any unauthorized assistance on this assignment/examination. We further pledge that we have not copied any material from a book, article, the Internet or any other source except where we have expressly cited the source.

6. **Detailed results, if any:**

- Sides of triangle must be positive.

- We have included edge cases for negative number and if sides entered does not form a triangle.

- We used one data input for each type of triangle.