# Abstract

The Myer's Triangle, sometimes referred to as the Classic Triangle Testing Puzzle. A program that reads three integer numbers is what it is. The lengths of a triangle's three sides are said to be represented by the three values. Depending on whether the triangle is scalene, isosceles, or equilateral, the application produces a message. The test cases created for this assignment are sufficient to test the software. There are various online explanations for this well-known testing issue.

# Test Cases

Test case 1

|  |  |
| --- | --- |
| Test case no. | 001 |
| Test case name | Scalene (triangle with unequal values) |
| Test steps | 1. The program scans user’s input. |
| 2. The program verified exactly three values that are natural (positive) numbers. |
| 1. If three values satisfy the following condition,    * (a ≠ b) AND (b ≠ c) AND (c ≠ a)   it is a scalene triangle because three values are different and still make up a triangle. |
| Expected results | The program prints “Input values is a scalene triangle” |

Test case 2

|  |  |
| --- | --- |
| Test case no. | 002 |
| Test case name | Isosceles (triangle with two sides of same values) |
| Test steps | 1. The program scans user’s input. |
| 2. The program verified exactly three values that are natural (positive) numbers. |
| 1. If three values satisfy the following condition,    * (a = b ≠ c) OR (b = c ≠ a) OR (c = a ≠ b)   it is an isosceles triangle because two values are the same and still  make up a triangle. |
| Expected results | The program prints “Input values is an isosceles triangle” |

Test case 3

|  |  |
| --- | --- |
| Test case no. | 003 |
| Test case name | Equilateral (triangle with all same values) |
| Test steps | 1. The program scans user’s input. |
| 2. The program verified exactly three values that are natural  (positive) numbers. |
| 1. If three values satisfy the following condition,    * (a = b) AND (b = c) AND (c = a)   it is an equilateral triangle because all values are the same and still make up a triangle. |
| Expected results | The program prints “Input values is an equilateral triangle.” |

Test case 4

|  |  |
| --- | --- |
| Test case no. | 004 |
| Test case name | Not a triangle |
| Test steps | 1. The program scans user’s input. |
| 2. The program verified exactly three values that are natural (positive) numbers. |
| 1. If three values satisfy the following condition,    * (a + b ≠ c) OR (b + c ≠ a) OR (c + a ≠ b)   It cannot form a triangle because the sides won’t touch each other.  ＊Equilateral will always be a triangle.  ＊Scalene and Isosceles are not always a triangle. |
| Expected results | The program prints “Input values cannot form a triangle.” |

Test case 5

|  |  |
| --- | --- |
| Test case no. | 005 |
| Test case name | Unable to compute |
| Test steps | 1. The program scans user’s input. |
| 2. The program found three values. |
| 3. At least one of the three values are not a natural number (positive number). Therefore, the program cannot compute it as triangle. |
| Expected results | The program prints “Input values are not positive numbers.” |

Test case 6

|  |  |
| --- | --- |
| Test case no. | 006 |
| Test case name | Missing values |
| Test steps | 1. The program scans user’s input. |
| 2. The program did not find exactly three values. Therefore, the program cannot compute it as triangle. |
| Expected results | The program prints “Cannot form triangle as missing input values.” |

# Conclusion

A simple method for learning testing is the traditional triangle testing issue. (Software and testing training, 2020) ). For this project, I used a basic path testing strategy. We can envision typical scenarios that users would enter to test it out, even if it does not execute the complete application in full. Setting up an object, acting on the topic being tested, and then confirming that the result is what was anticipated are the steps in every test case (Marsic, 2012, P.140).

# References

Marsic, I. (2012). *Software engineering.* Rutgers University. https://[www.ece.rutgers.edu/~marsic/books/SE/book-SE\_marsic.pdf](http://www.ece.rutgers.edu/~marsic/books/SE/book-SE_marsic.pdf)

Software and Testing Training. (2020, December 5). *Path Testing in Software Testing with Example | Triangle Problem | Basis Path Testing basic concepts* . YouTube. https://[www.youtube.com/watch?v=t-C3Bt7f1M8](http://www.youtube.com/watch?v=t-C3Bt7f1M8)