**Week1 Homework: Junit & The Triangle Program**

***Submission***: Zip your all the files in your Java project and upload the archive to Blackboard.

Your task is to add to my Triangle Program and write the JUnit test cases that correspond to your triangle solution. The specification for the program follow:

The triangle program accepts three integers, a, b, and c as input.

These are taken to be sides of a triangle.

The integers a, b, and c must satisfy the following conditions:

c1. 1 ≤ a ≤ 200

c2. 1 ≤ b ≤ 200

c3. 1 ≤ c ≤ 200

c4. a < b + c

c5. b < a + c

c6. c < a + b

The output of the program is the type of triangle determined by the three sides.

If values of a, b, and c satisfy conditions c4, c5, and c6, one of five mutually exclusive outputs is given:

* R1. If all three sides are equal, the program output is Equilateral.
* R2. If exactly one pair of sides is equal, the program output is Isosceles.
* R3. If no pair of sides is equal, the program output is Scalene.
* R4. If any of conditions c4, c5, and c6 is not met, the program output is “Not A Triangle”.
* R5. If an input value fails any of conditions c1, c2, or c3, the program will output a message like: “Value of b is not in the range of permitted values.”

Use Junit 4 to construct the tests.

## Submit the files and proof the tests run.