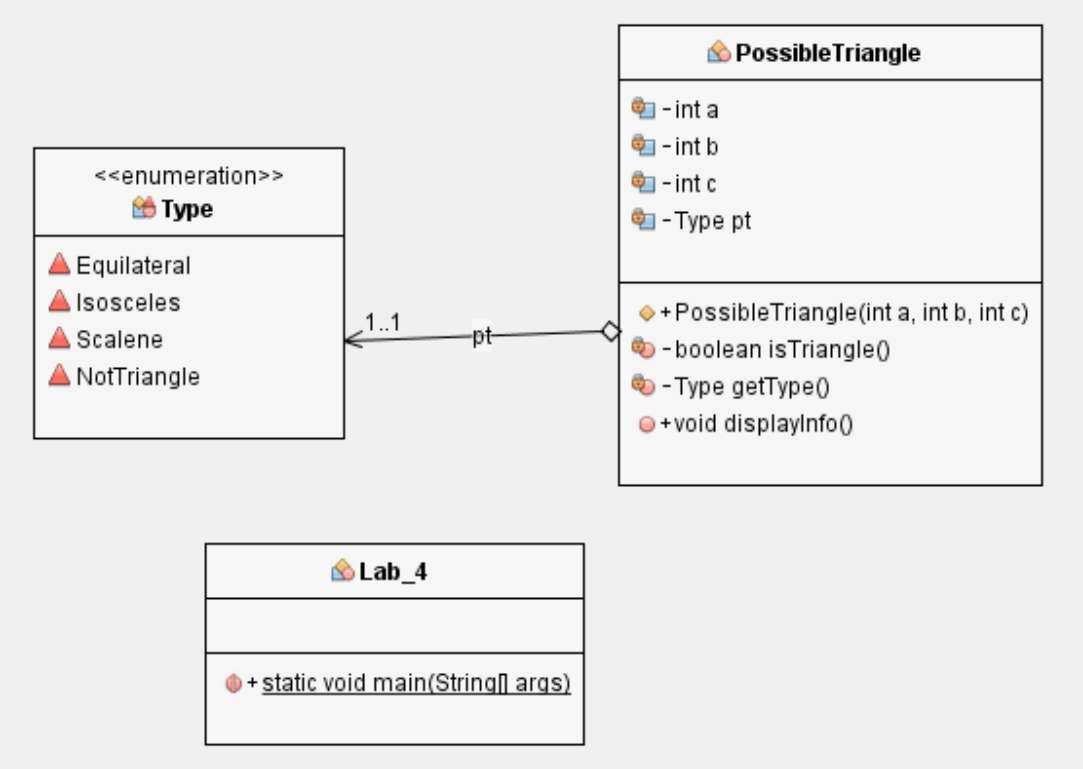
Lab 4
File Name: YourName_Lab_4.java

*Given three integers a, b and c. These 3 integers can form the three sides of a triangle if and only if a, b and c is positive and the sum of **any** two integers is greater than the other integer.*

There are three types of triangles:

(a) Isosceles triangle, any two sides which are equal
(b) Equilateral triangle, all the three sides which are equal. Note that an equilateral triangle is also an isosceles triangle.
(c) Scalene triangle, all the three sides are different.



In the UML diagram, you need to explore a few methods in the design:

- A method to test and to return (true or false) if three integers can form a triangle
- A method to test and to return the Type of a triangle
- A method to display the triangle info

An instance variable pt should be initialized it inside the constructor to an appropriate data type.

The following features must be included in the design:

(a) Using if-else statement to identify whether it is a triangle. If it is a triangle, what is its type?

(b) Using switch-case statement to print out the triangle's information, i.e. information as shown in the above.

In the main method (no reading), you construct four possible triangle objects; upon execution, you will get the following display:

```
a = 4, b = 5, c = 6
A triangle
----------------------------
a = 1, b = 2, c = 3
Not a triangle
----------------------------
a = 4, b = 5, c = 5
Isosceles triangle
A triangle
----------------------------
a = 6, b = 6, c = 6
Equilateral triangle
Isosceles triangle
A triangle
----------------------------
```

During the demo, you may be asked to change the values of a triangle.

You must respect basic programming style in writing this program

- Indentations and alignment of statements / braces
- A blank line between methods / classes / tasks
- Efficiently use of comment statements
- Avoid long statements
- Declarations