Software Testing

LAB 2

Create a program in java to implement Logic to find third angle of a triangle. After that check the triangle type with respect to the angle.

```java
 7     * @author fa21-bse-033
 8     */
 9    public class JavaApplication1 {
10
11        public static void main(String[] args) {
12
13            Scanner scanner = new Scanner(System.in);
14
15            System.out.println("Enter the First angle of the triangle");
16            int angle1 = scanner.nextInt();
17            System.out.println("Enter the second angle of the triangle");
18            int angle2 = scanner.nextInt();
19
20            int angle3 = 180 - angle1 - angle2;
21
22            System.out.println("The third angle of the triangle is: " + angle3);
23
24            if(angle1==angle2&&angle2==angle3){
25                System.out.println("it is an equilateral traingle");
26            } else if(angle1==angle2 || angle2==angle3||angle1==angle3){
27                System.out.println("it is an isosceles traingle");
28            } else{
29                System.out.println("it is an scalene triangle");
30            }
31        }
32
33    }
```

USECASES:

Test Case ID	Test Case Description	Input Data	Expected Outcome	Actual Outcome	Status
TC-01	Inputting three angles of an triangle	30,60	The third angle of the triangle is: 90 It is a right triangle.	The third angle of the triangle is: 90 It is a right triangle.	Pass
TC-02	Inputting three angles of an triangle	110,40	The third angle of the triangle is: 30 It is an obtuse triangle.	The third angle of the triangle is: 30 It is an obtuse triangle.	Pass
TC-03	Inputting three angles of an triangle	60,60	The third angle of the triangle is: 60 It is an acute triangle.	The third angle of the triangle is: 60 It is an acute triangle.	Pass
TC-04	Inputting Negative angle values	-30,-60	**Error**: Angle values cannot be negative	The third angle of the triangle is: 270 It is an obtuse triangle.	Fail
TC-05	Inputting zero angle values	0,0	**Error**: Angle values cannot be zero	The third angle of the triangle is: 180 It is an obtuse triangle.	Fail
TC-06	Input angle values whose sum is greater than 180	100,90	**Error:** invalid inputs, since angles sum cannot exceed 180	The third angle of the triangle is: -10 It is a right triangle.	Fail