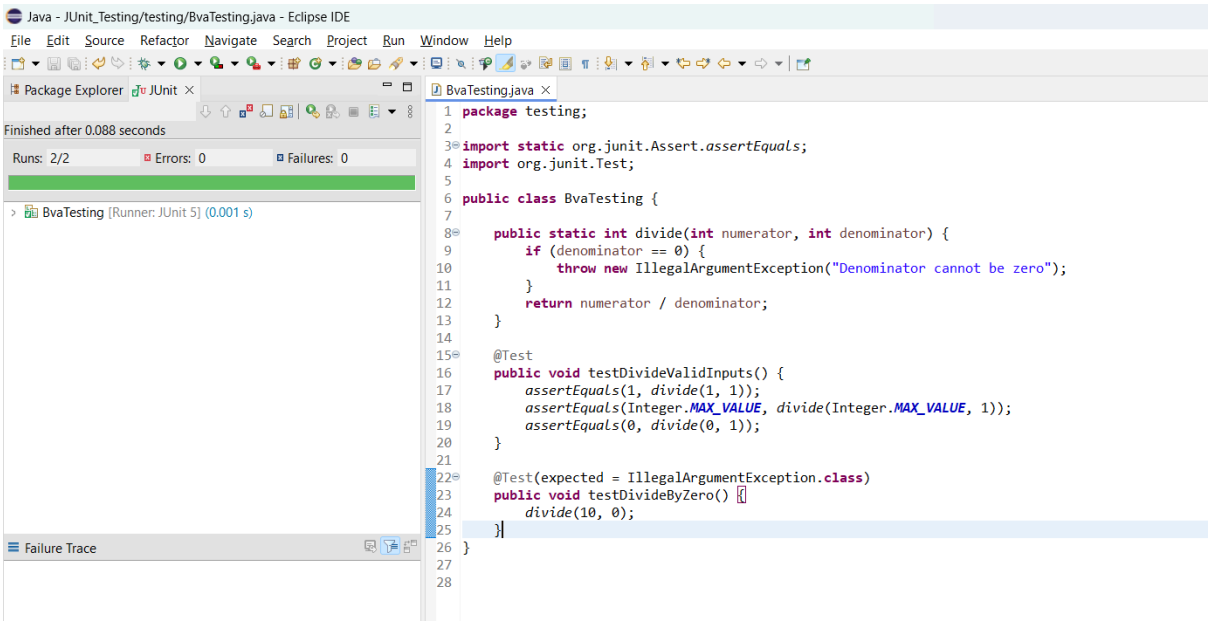
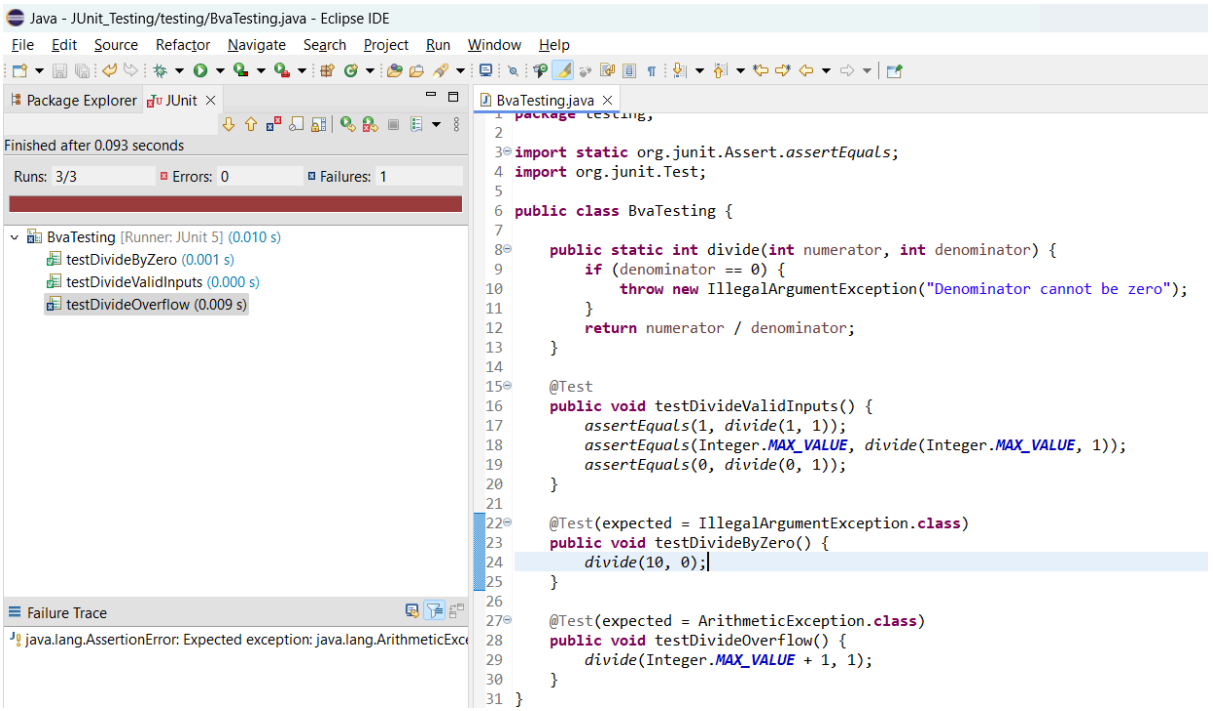
Software Engineering Lab Practical 10

Name : Dhanshree Dharpure
Roll No. : 03
Batch : B1

Aim: To perform White-Box Testing and Black-Box Testing on a test case to demonstrate application/code testing

Boundary value testing -

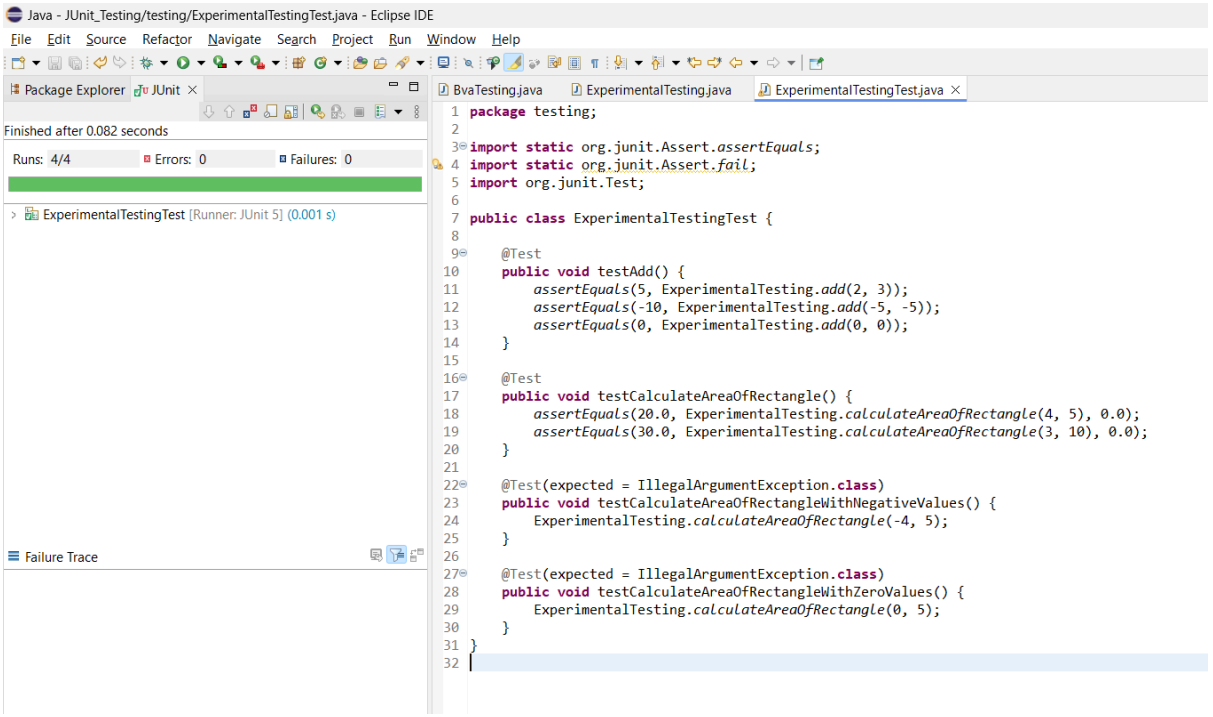


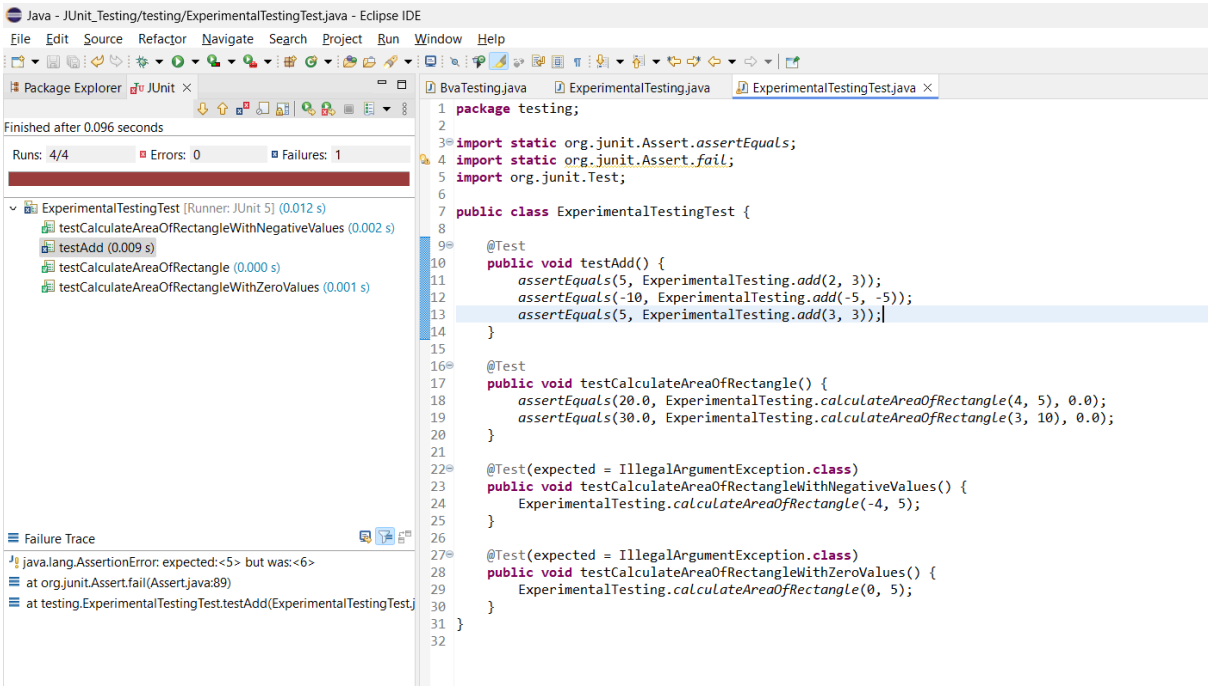


Experimental testing -

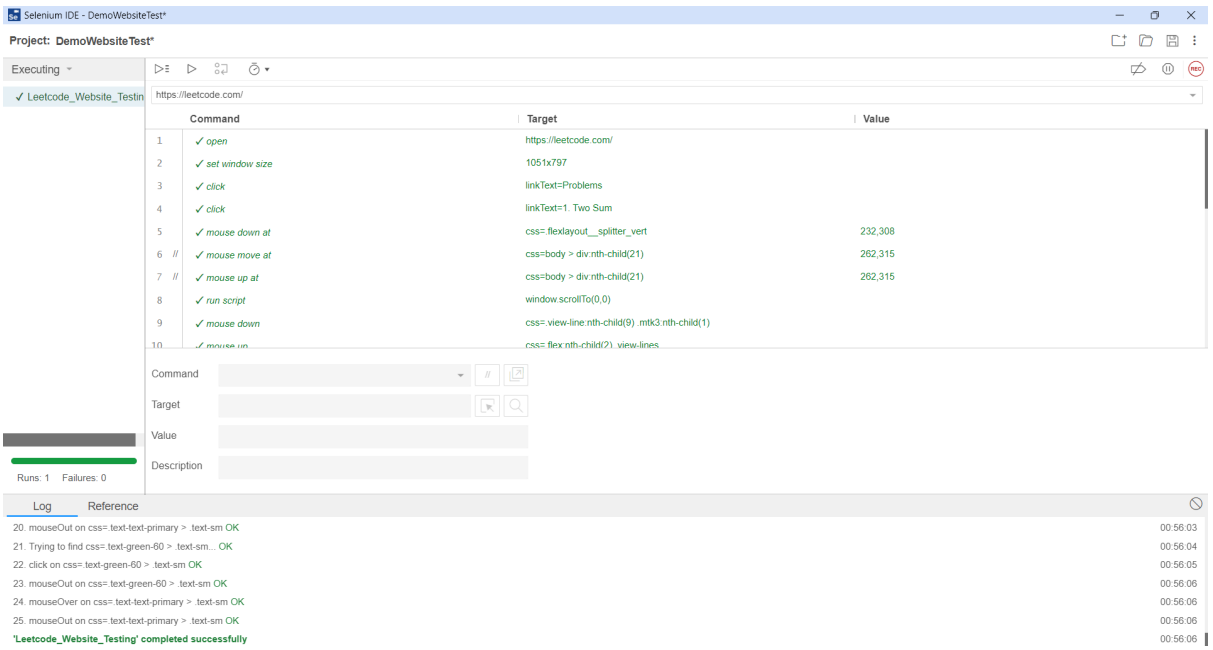
BvaTesting.java | ExperimentalTesting.java | ExperimentalTestingTest.java

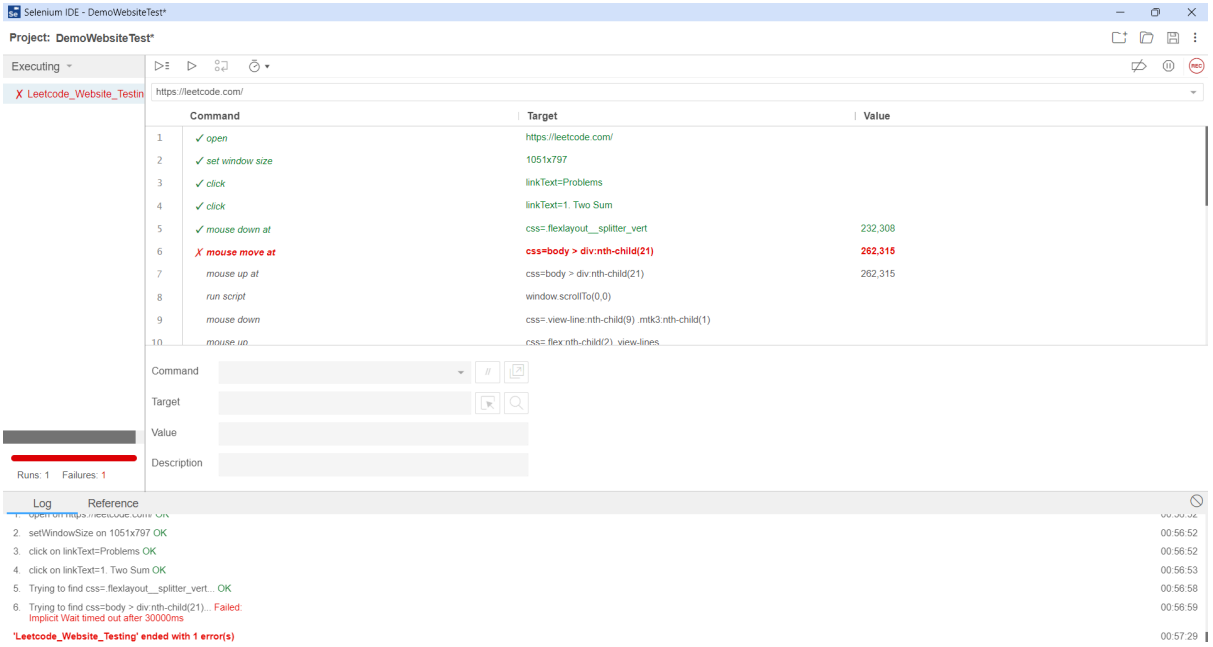
```java
package testing;

public class ExperimentalTesting {

    public static int add(int a, int b) {
        return a + b;
    }

    public static double calculateAreaOfRectangle(int length, int width) {
        if (length <= 0 || width <= 0) {
            throw new IllegalArgumentException("Length and width must be positive numbers");
        }
        return length * width;
    }
}
```




Java - JUnit_Testing/testing/ExperimentalTestingTest.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer JUnit
Finished after 0.096 seconds
Runs: 4/4 Errors: 0 Failures: 1
ExperimentalTestingTest [Runner: JUnit 5] (0.012 s)
testCalculateAreaOfRectangleWithNegativeValues (0.002 s)
testAdd (0.009 s)
testCalculateAreaOfRectangle (0.000 s)
testCalculateAreaOfRectangleWithZeroValues (0.001 s)
Failure Trace
java.lang.AssertionError: expected:<5> but was:<6>
at org.junit.Assert.fail(Assert.java:89)
at testing.ExperimentalTestingTest.testAdd(ExperimentalTestingTest.j
BvaTesting.java
ExperimentalTesting.java
ExperimentalTestingTest.java
1 package testing;
2
3 import static org.junit.Assert.assertEquals;
4 import static org.junit.Assert.fail;
5 import org.junit.Test;
6
7 public class ExperimentalTestingTest {
8
9 @Test
10 public void testAdd() {
11 assertEquals(5, ExperimentalTesting.add(2, 3));
12 assertEquals(-10, ExperimentalTesting.add(-5, -5));
13 assertEquals(5, ExperimentalTesting.add(3, 3));
14 }
15
16 @Test
17 public void testCalculateAreaOfRectangle() {
18 assertEquals(20.0, ExperimentalTesting.calculateAreaOfRectangle(4, 5), 0.0);
19 assertEquals(30.0, ExperimentalTesting.calculateAreaOfRectangle(3, 10), 0.0);
20 }
21
22 @Test(expected = IllegalArgumentException.class)
23 public void testCalculateAreaOfRectangleWithNegativeValues() {
24 ExperimentalTesting.calculateAreaOfRectangle(-4, 5);
25 }
26
27 @Test(expected = IllegalArgumentException.class)
28 public void testCalculateAreaOfRectangleWithZeroValues() {
29 ExperimentalTesting.calculateAreaOfRectangle(0, 5);
30 }
31 }
32

Selenium :


Selenium IDE - DemoWebsiteTest*
Project: DemoWebsiteTest*
Executing
Leetcode_Website_Testin
https://leetcode.com/
Command Target Value
1 open https://leetcode.com/
2 set window size 1051x797
3 click linkText=Problems
4 click linkText=1. Two Sum
5 mouse down at css=.flexlayout__splitter_vert 232,308
6 mouse move at css=body > div:nth-child(21) 262,315
7 mouse up at css=body > div:nth-child(21) 262,315
8 run script window.scrollTo(0,0)
9 mouse down css=.view-line:nth-child(9) .mtk3:nth-child(1)
Command
Target
Value
Description
Runs: 1 Failures: 0
Log Reference
20. mouseOut on css=.text-text-primary > .text-sm OK 00:56:03
21. Trying to find css=.text-green-60 > .text-sm... OK 00:56:04
22. click on css=.text-green-60 > .text-sm OK 00:56:05
23. mouseOut on css=.text-green-60 > .text-sm OK 00:56:06
24. mouseOver on css=.text-text-primary > .text-sm OK 00:56:06
25. mouseOut on css=.text-text-primary > .text-sm OK 00:56:06
'Leetcode_Website_Testing' completed successfully 00:56:06


Selenium IDE - DemoWebsiteTest*
Project: DemoWebsiteTest*
Executing
Leetcode_Website_Testin
https://leetcode.com/
Command
Target
Value
1 ✓ open https://leetcode.com/
2 ✓ set window size 1051x797
3 ✓ click linkText=Problems
4 ✓ click linkText=1. Two Sum
5 ✓ mouse down at css=.flexlayout__splitter_vert 232,308
6 ✗ mouse move at css=body > div:nth-child(21) 262,315
7 mouse up at css=body > div:nth-child(21) 262,315
8 run script window.scrollTo(0,0)
9 mouse down css=.view-line:nth-child(9) .mtk3:nth-child(1)
10 mouse up css=.flex:nth-child(2) .view-lines
Command
Target
Value
Description
Runs: 1 Failures: 1
Log
Reference
2. setWindowSize on 1051x797 OK 00:56:52
3. click on linkText=Problems OK 00:56:52
4. click on linkText=1. Two Sum OK 00:56:53
5. Trying to find css=.flexlayout__splitter_vert... OK 00:56:58
6. Trying to find css=body > div:nth-child(21)... Failed: 00:56:59
Implicit Wait timed out after 30000ms
'Leetcode_Website_Testing' ended with 1 error(s) 00:57:29