

Date:
Lab Session No.: 03

Task 3: Parameterized testing using JUnit

Aim: To perform parameterized testing using JUnit.

Procedure:

Steps:

1. Creating Java project.
 - Click on File and select New project
 - Enter project name as com.vogella.JUnit.Basic
 - Click on Next and then on Finish
2. Creating java Test Project
 - Right click on com.vogella.JUnit.Basic.
 - Click on properties and select tab java build path
 - Click on source and click on Create New Folder.
 - Give the folder name as Test and click on next.
 - Click on Finish and then on OK
3. Creating java class
 - Right click on com.vogella.JUnit.Basic and click on New .
 - Click on class and give the class name as Addition
 - Click on Finish
 - Type the following code

```
package com.vogella.Junit.Basic;
public class Addition {
    public int addNumbers(int a , int b)
    {
        int sum=a+b;
        return sum;
    }
}
```

4. Create java test class
 - Right click on com.vogella.JUnit.Basic and click on new
 - Click on Junit test case.
 - Change the name of folder src to test in source folder tab.
 - Click on browse and select Addition class and click on Next.
 - Click on Finish and then on OK.
 - Add the following code

```
package com.vogella.Junit.Basic;
import static org.junit.Assert.*;
import java.util.Arrays;
import java.util.Collection;
import org.junit.Test;
import org.junit.runner.RunWith;
import org.junit.runners.Parameterized;
import org.junit.runners.Parameterized.Parameters;
```

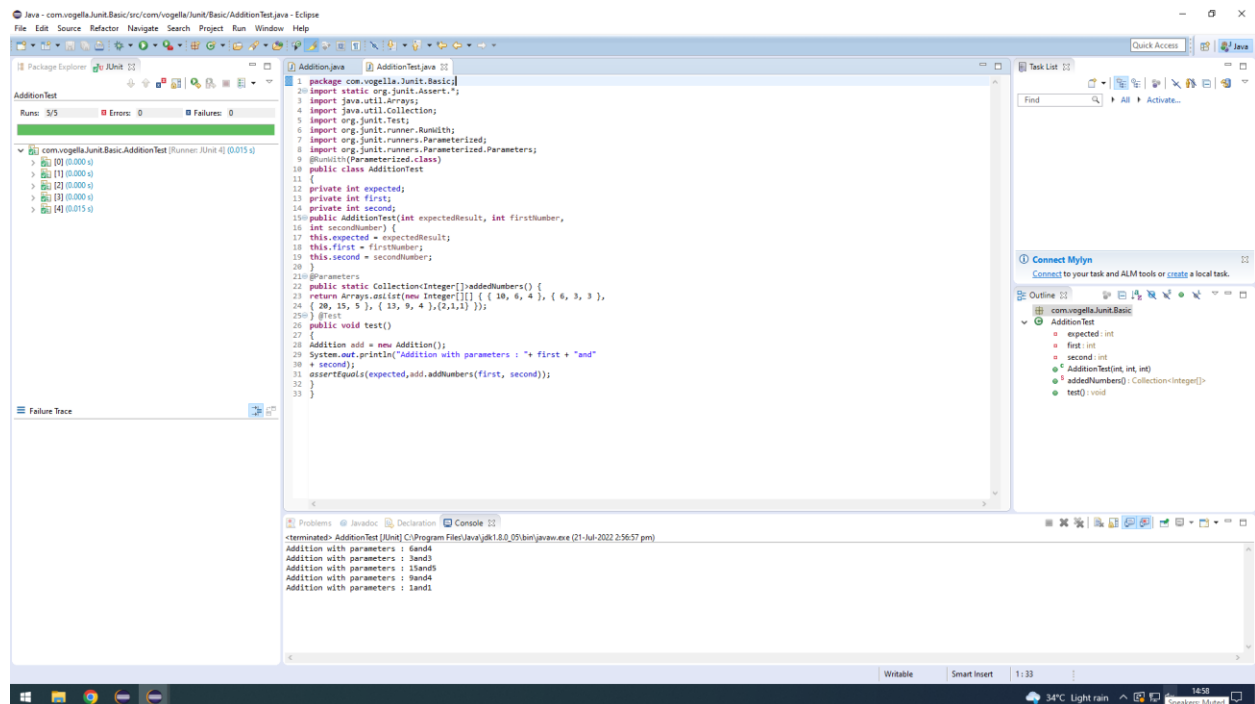
```

    @RunWith(Parameterized.class)
    public class AdditionTest
    {
        private int expected;
        private int first;
        private int second;
        public AdditionTest(int expectedResult, int firstNumber,
            int secondNumber) {
            this.expected = expectedResult;
            this.first = firstNumber;
            this.second = secondNumber;
        }
        @Parameters
        public static Collection<Integer[]>addedNumbers() {
            return Arrays.asList(new Integer[][] { { 6, 4 }, { 6, 3, 3 },
            { 20, 15, 5 }, { 13, 9, 4 }, { 2, 1, 1 } });
        }
        @Test
        public void test()
        {
            Addition add = new Addition();
            System.out.println("Addition with parameters : "+ first + "and"
            + second);
            assertEquals(expected,add.addNumbers(first, second));
        }
    }

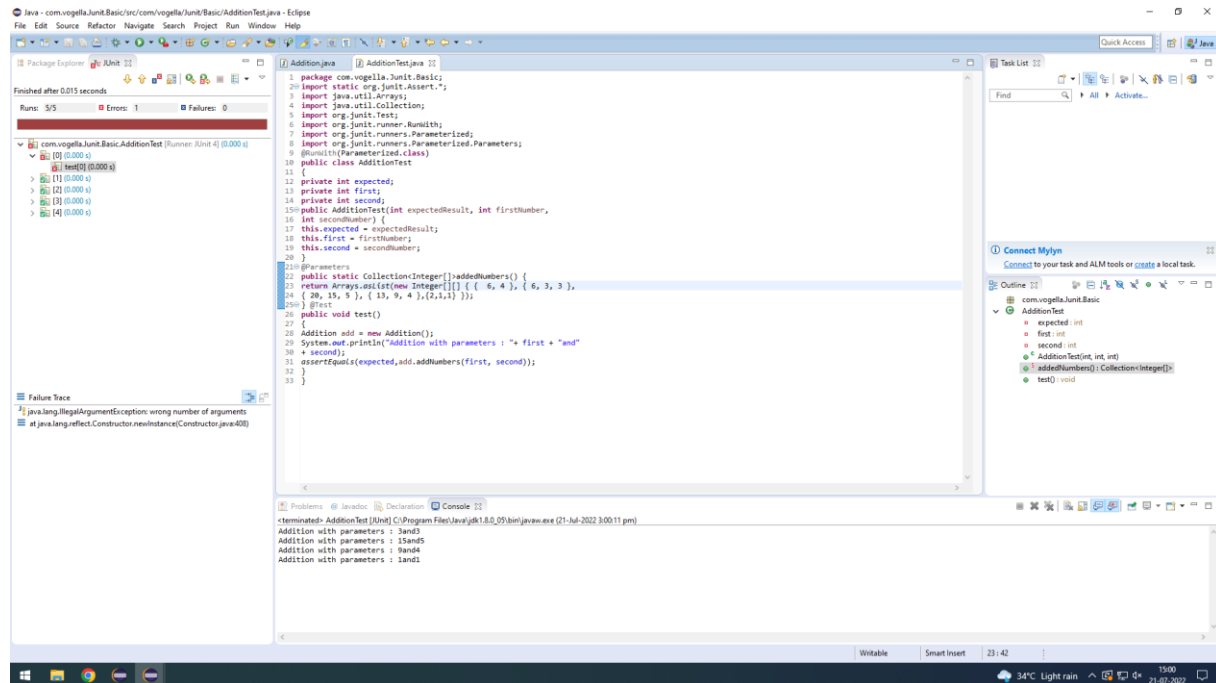
```

Output:

Pass Case for Addition



Fail Case for Addition



Result: Performing parameterized testing using JUnit has been done successfully.

Evaluator's Observation

Marks Secured: _____ **out of** _____

Full Name of the Evaluator:

Signature of the Evaluator:

Student's Signature

Date of Evaluation: