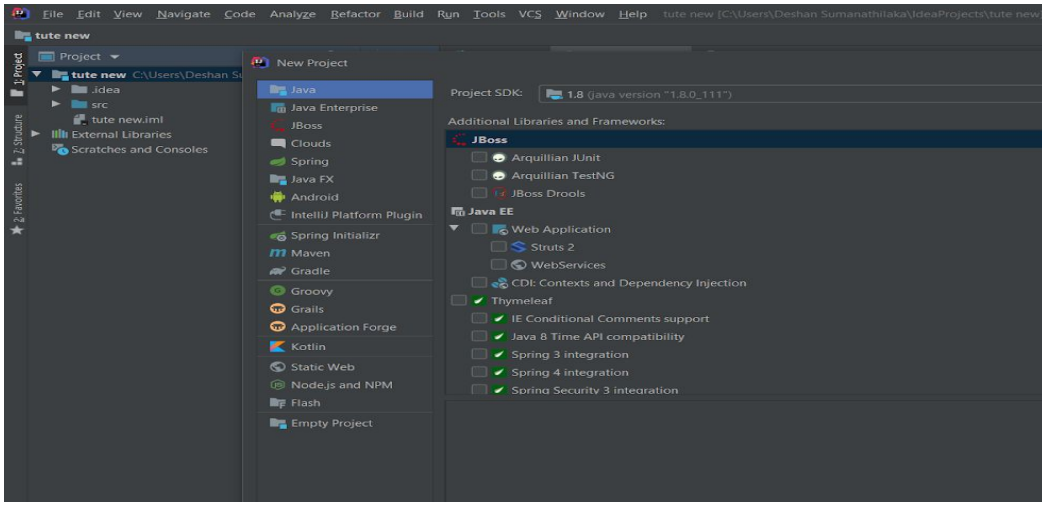
Tutorial 07 - Unit Testing Junit

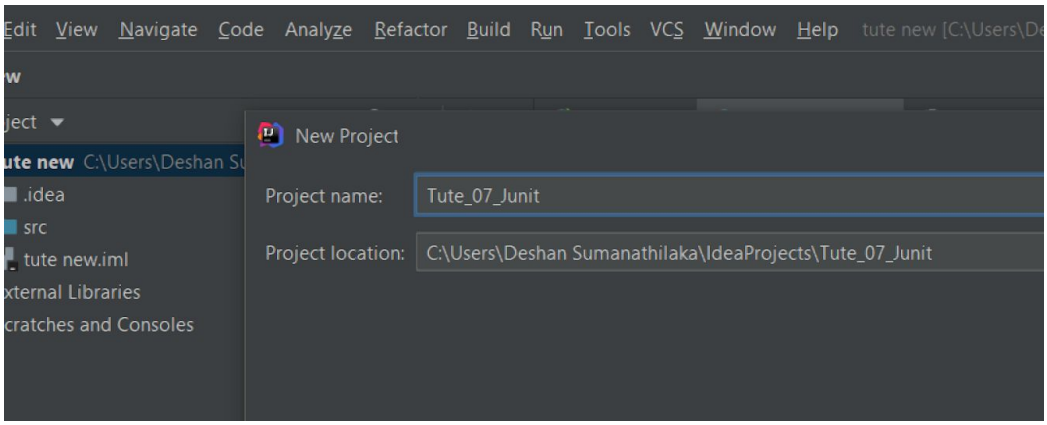
Que 1 . What is unit Testing?

Que 2. What are the Benefits of Unit Testing ?

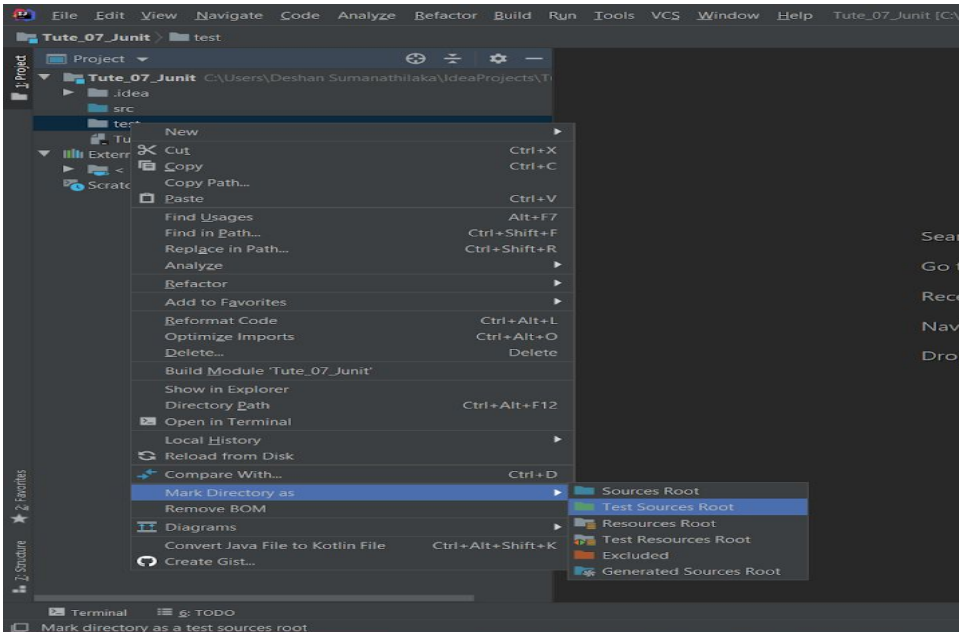
Que 03. Java and Junit

a. Create a new java project and name it tute_07_Junit

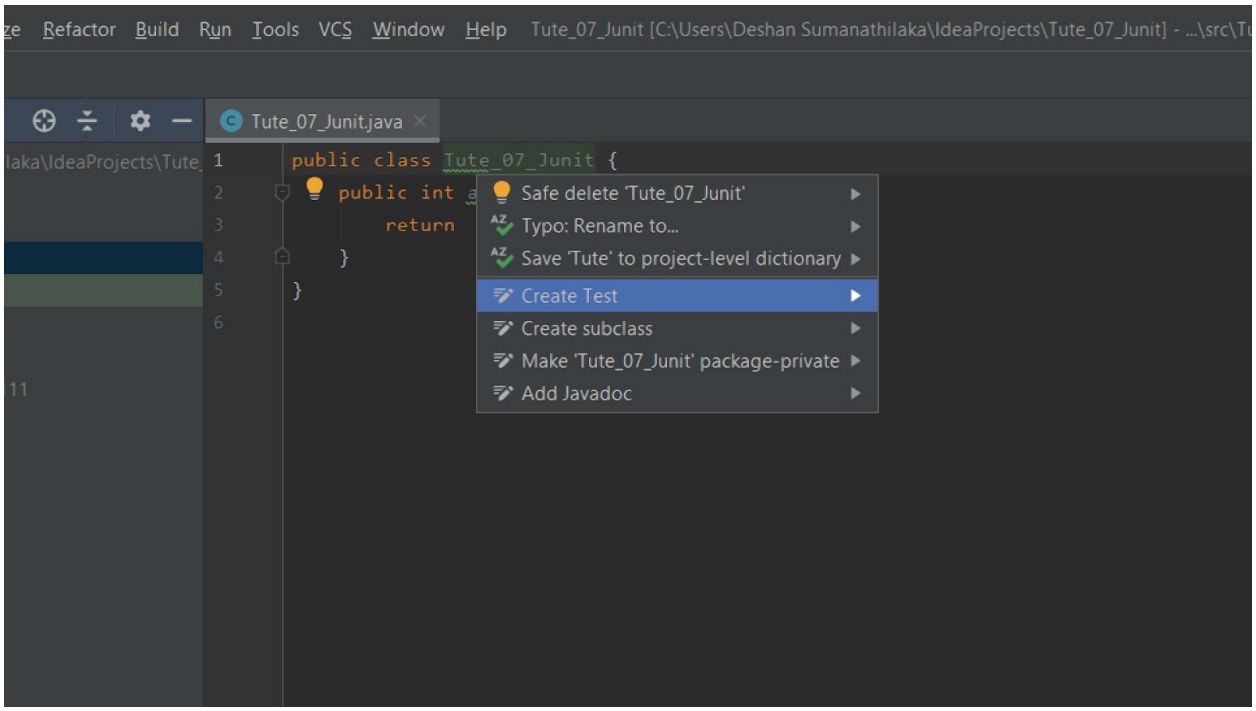


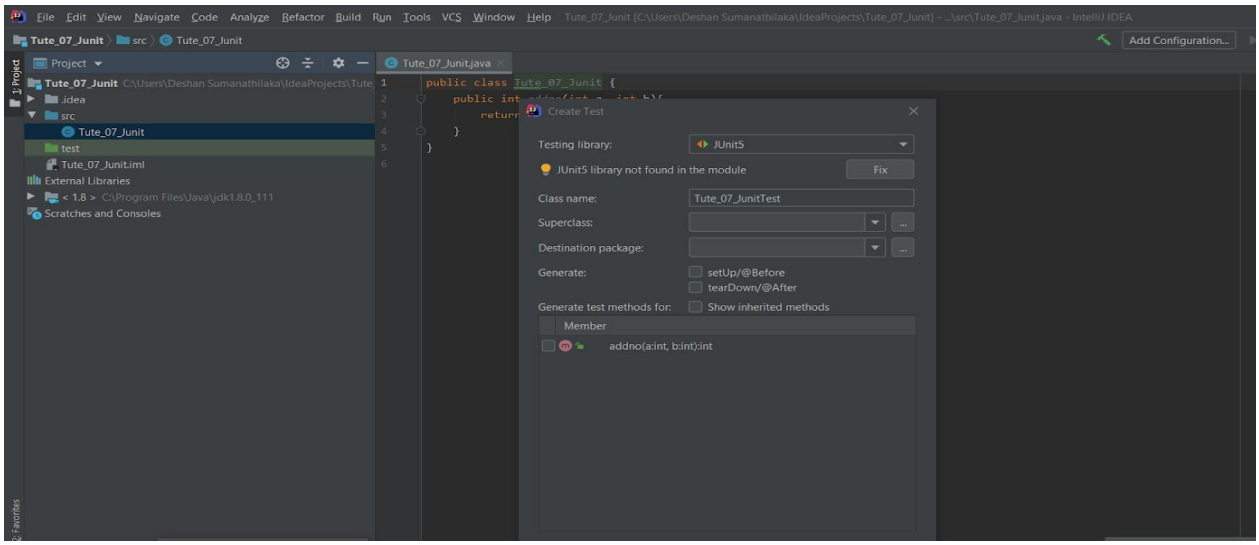


b. Create New Directory with the name **test** and make directory as Test Source Root



c. Create a new java class named JunitExample and create a method named addNumbers which accepts two integer parameters.
d. Create a test for class. Use alt+ enter to get the prompt.

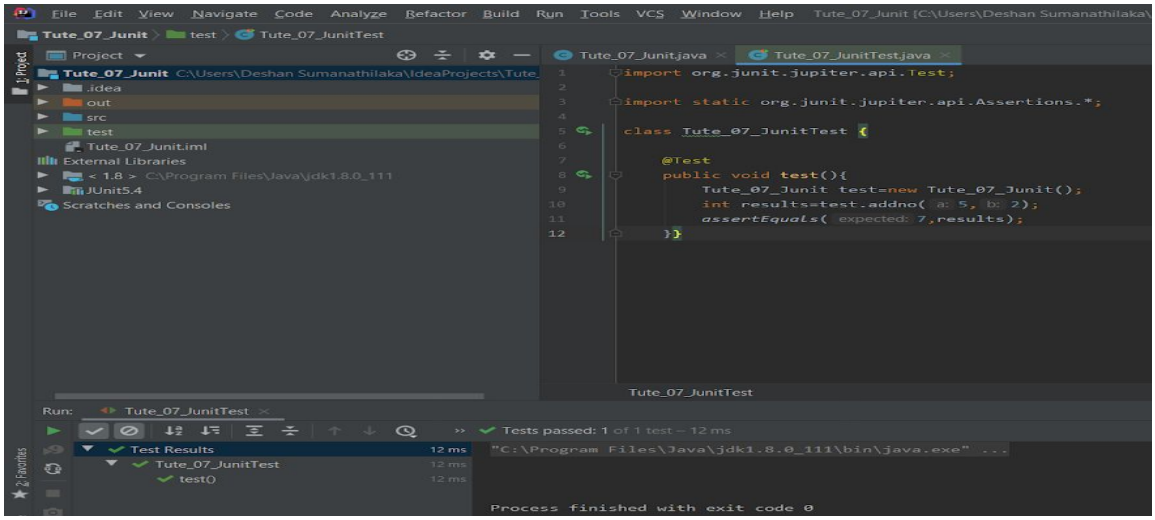


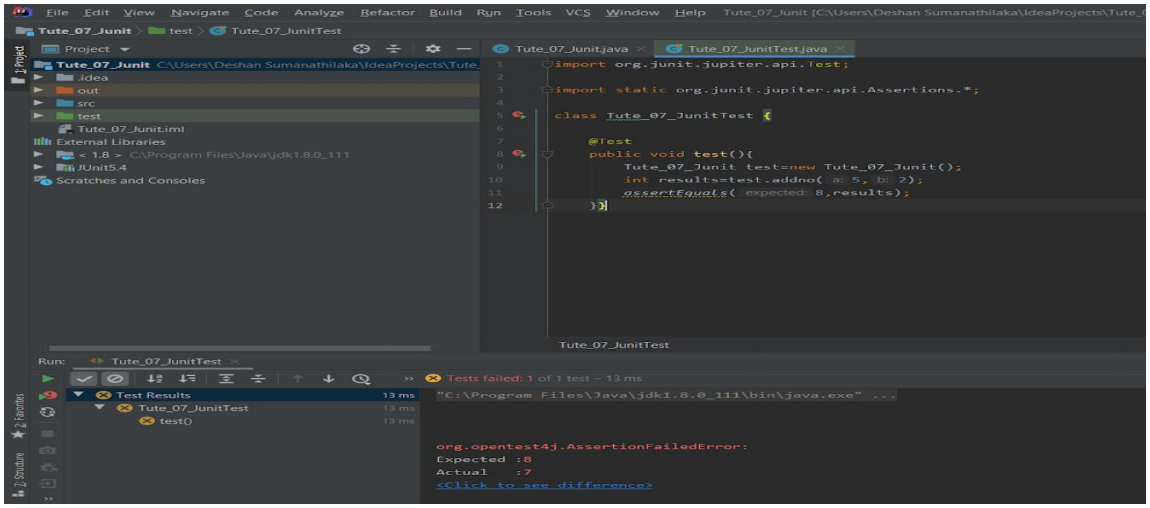


e. Select Junit4 and click ok.
(if you have a warning message Junit library not found in the module, click fix and to the necessary changes)
f. The new test file is available in the test directory.
g. Use AssertEquals method to test if the method outputs the correct result
h. Now test the results for two cases.
Create a test plan and Write your Observations

Eg: a=5 , b=2
Expected value : 7

a=5 , b=2
Expected value : 8





Que 04. Lecture Question

Refer to the lecture on unit testing and do the example given(Calculator).

Create a unit test for add and multiply.

```
public class Calculator {

    public static int add(int firstNumber, int secondNumber) {
        return firstNumber + secondNumber;
    }

    public static int multiply(int multiplicand, int multiplier) {
        return multiplicand * multiplier;
    }

}
```

Question 5

In the same calculator class write a division method. And right click on the class and update the test and go to show context actions and add a test method for division. The test method should be expecting the divide by zero arithmetic exception.Write the test method to divide by zero.