

2CSDE80 Software Testing and Quality Assurance

Lab-4 Task

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Aim: To study and perform sample tests using the J-Unit Testing tool

Methodology followed:



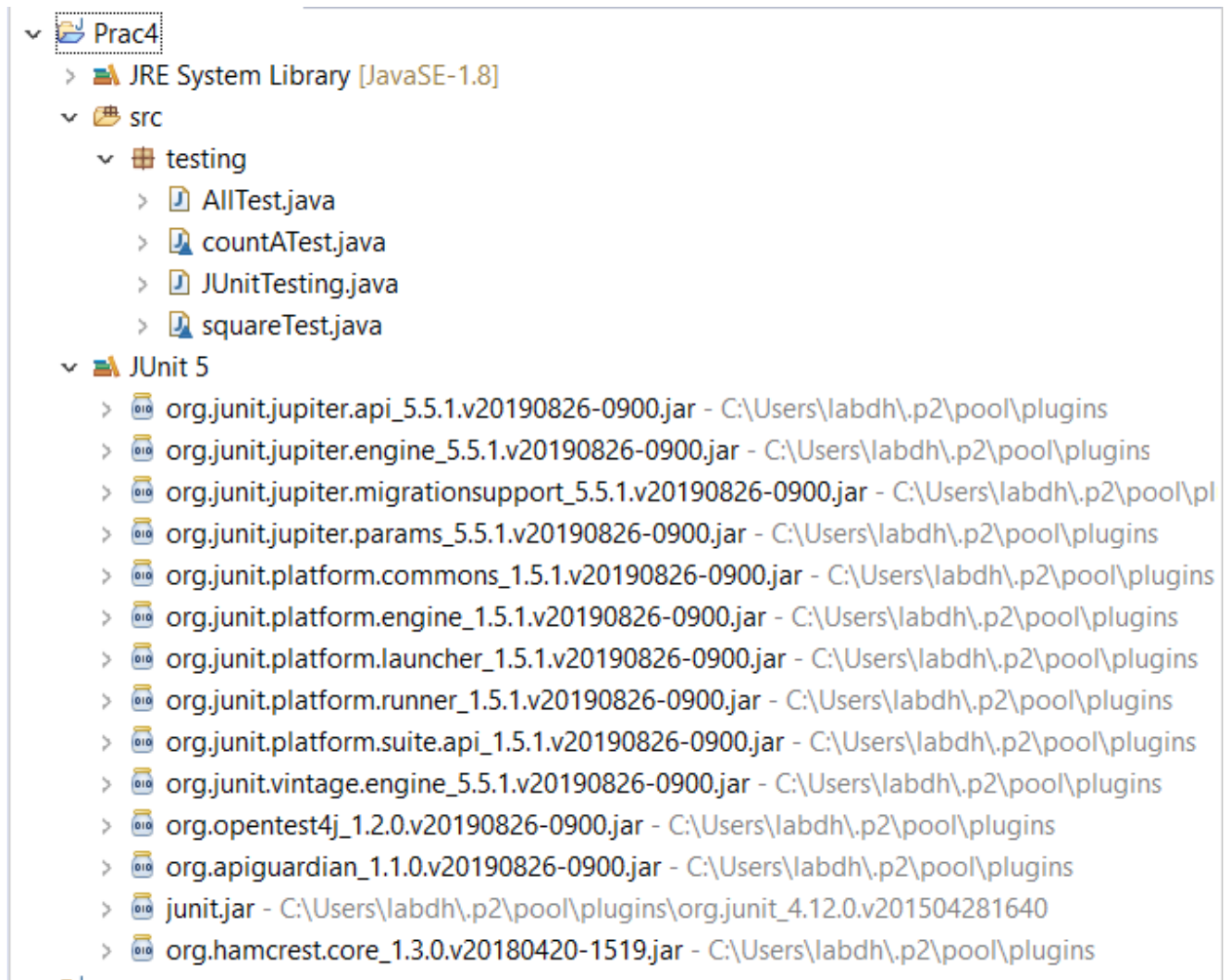
JUnit is a Unit Testing framework for Java. The framework is used by Java developers to write and execute tests. Every time a new code is added, all the test cases have to be re-executed.

Unit testing refers to the testing of small chunks of codes. It helps in the early identification of defects. The developers tend to spend more time reading the code. Successful code increases the confidence of the developers!

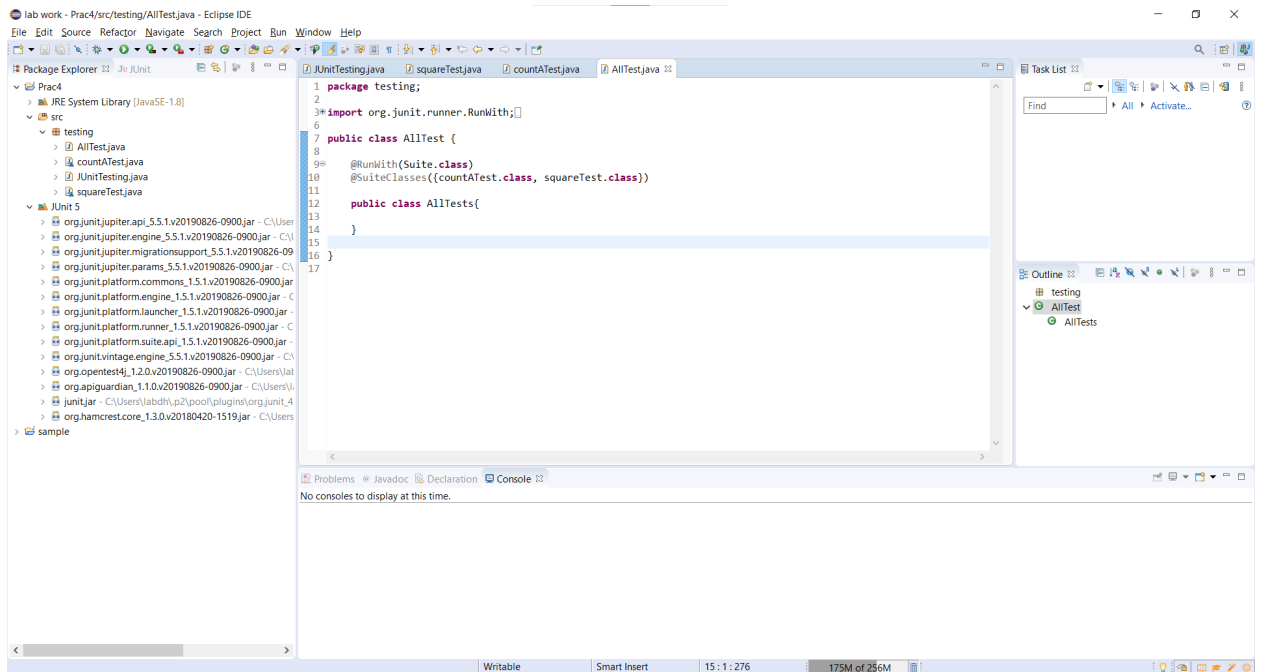
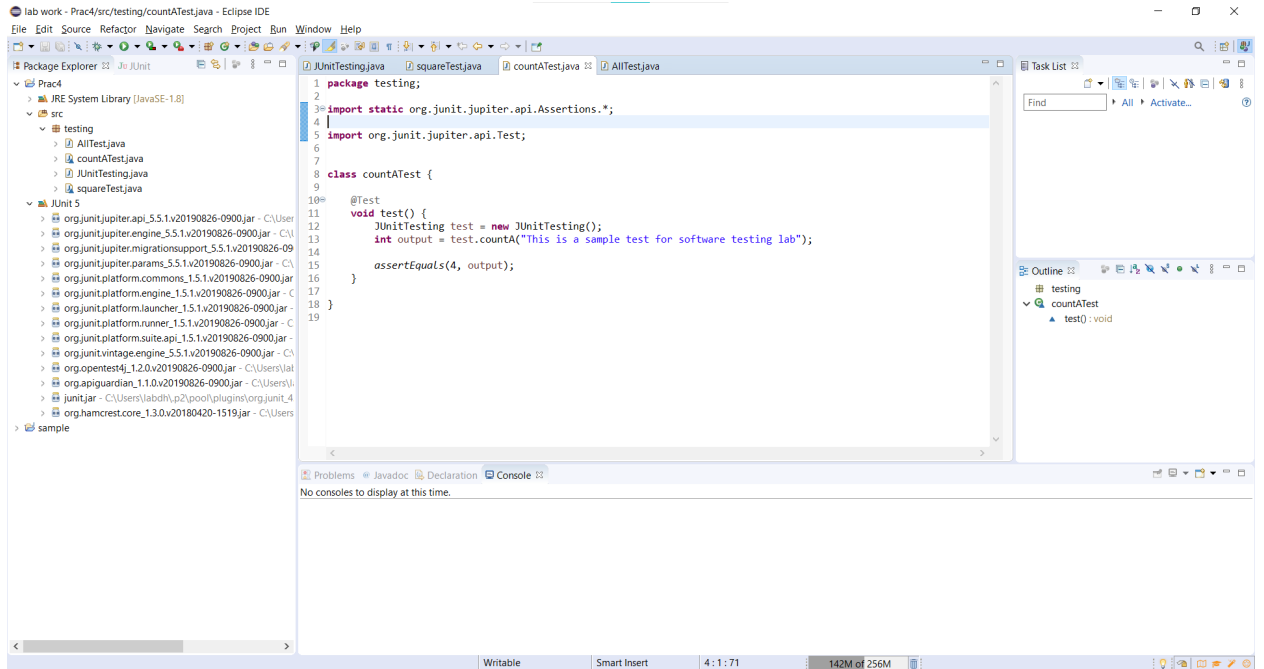
Code and Output:

1. Making the project:

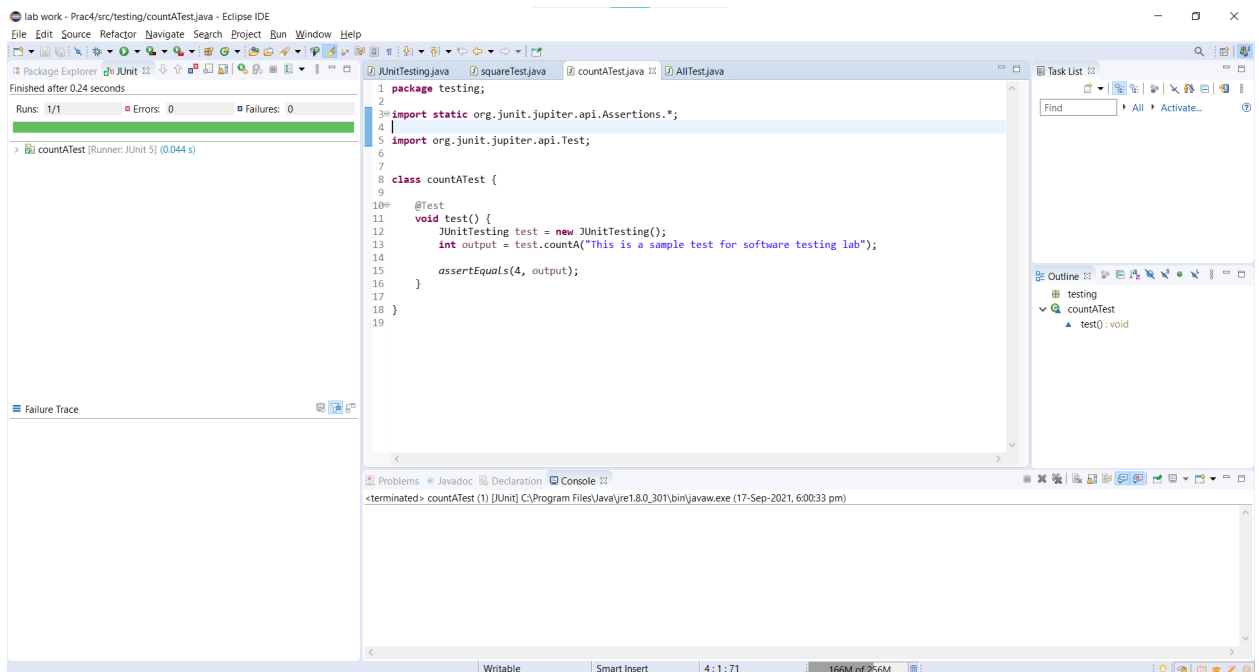
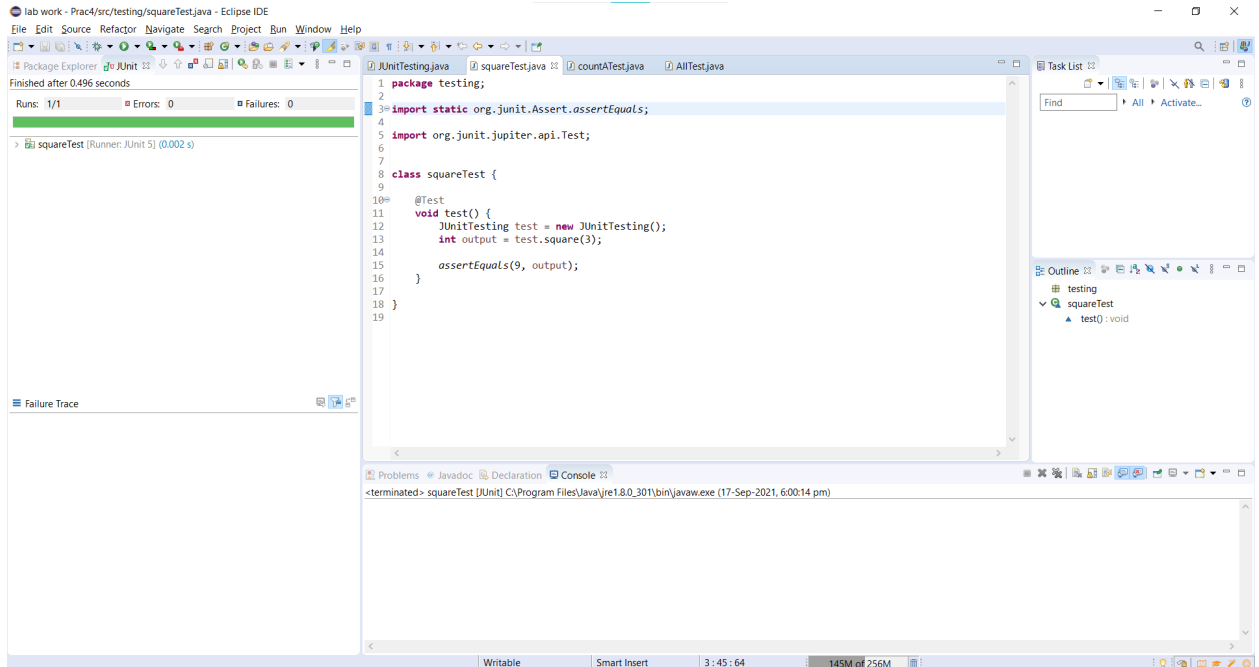
Open Eclipse and create a project and add JUnit 5.



2. Codes:



3. Execution:



`square()` method tests if the methods correctly tests the square of a number and `countA()` tests if the number of A are correctly counted.

`assertEquals()` is a static method takes two parameters which is value we expect to get and the output which is actually given.

AllTest is a test suite which runs with suite classes which are `squareTest()` and `countATest()`. It is one place where all the test classes run together.

Conclusion:

JUnit test framework is a package of classes that lets you write tests for each method, then easily run those tests. `TestRunner` runs tests and reports `TestResults`. You test your class by extending abstract class `TestCase`. To write test cases `Assert` class is used.