Java Spring & AWS
Sep 7, 2021 - Oct 8, 2021
Monday to Friday
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Bootcamp Training
Java Spring AWS Frontend Training

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Agenda: Day - 18

✓ Unit testing

- It is an *open-source testing framework* for java programmers. The java programmer can create test cases and test his/her own code.
- It is one of the unit testing framework. Current version is junit 4.
- To perform unit testing, we need to create test cases. The **unit test case** is a code which ensures that the program logic works as expected.
- The **org.junit** package contains many interfaces and classes for junit testing such as Assert, Test, Before, After etc.

Annotations for Junit testing

The Junit 4.x framework is annotation based, so let's see the annotations that can be used while writing the test cases.

➢ **@Test** annotation specifies that method is the test method.

➢ **@Test(timeout=1000)** annotation specifies that method will be failed if it takes longer than 1000 milliseconds (1 second).

➢ **@BeforeClass** annotation specifies that method will be invoked only once, before starting all the tests.

➢ **@Before** annotation specifies that method will be invoked before each test.

➢ **@After** annotation specifies that method will be invoked after each test.

➢ **@AfterClass** annotation specifies that method will be invoked only once, after finishing all the tests.

Assert class

The org.junit.Assert class provides methods to assert the program logic.

Methods of Assert class

The common methods of Assert class are as follows:

➤ **void assertEquals(boolean expected,boolean actual)**: checks that two primitives/objects are equal. It is overloaded.

➤ **void assertTrue(boolean condition)**: checks that a condition is true.

➤ **void assertFalse(boolean condition)**: checks that a condition is false.

➤ **void assertNull(Object obj)**: checks that object is null.

➤ **void assertNotNull(Object obj)**: checks that object is not null.

Required jar files

- You need to load **junit4.jar** and **hamcrest-core.jar** files.