JUnit Testing Exercises

# Exercise 1: Setting Up JUnit

Scenario:

You need to set up JUnit in your Java project to start writing unit tests. Steps:

1. Create a new Java project in your IDE (e.g., IntelliJ IDEA, Eclipse).
2. Add JUnit dependency to your project. If you are using Maven, add the following to your pom.xml:

<dependency>

<groupId>junit</groupId>

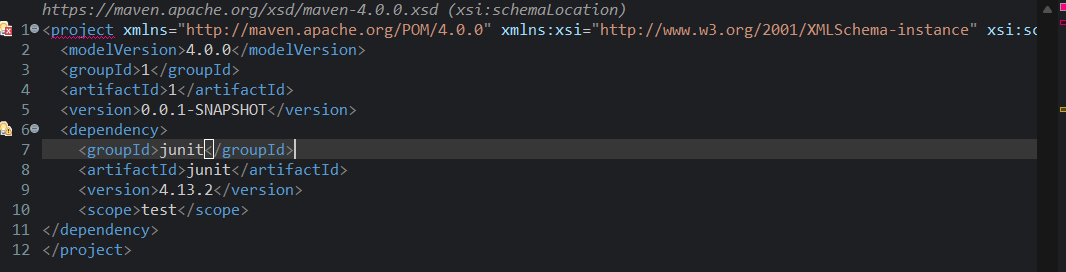
<artifactId>junit</artifactId>

<version>4.13.2</version>

<scope>test</scope>

</dependency>

1. Create a new test class in your project.



# Exercise 3: Assertions in JUnit

Scenario:

You need to use different assertions in JUnit to validate your test results. Steps:

Write tests using various JUnit assertions.

Solution Code:

public class AssertionsTest { @Test

public void testAssertions() {

// Assert equals assertEquals(5, 2 + 3);

// Assert true assertTrue(5 > 3);

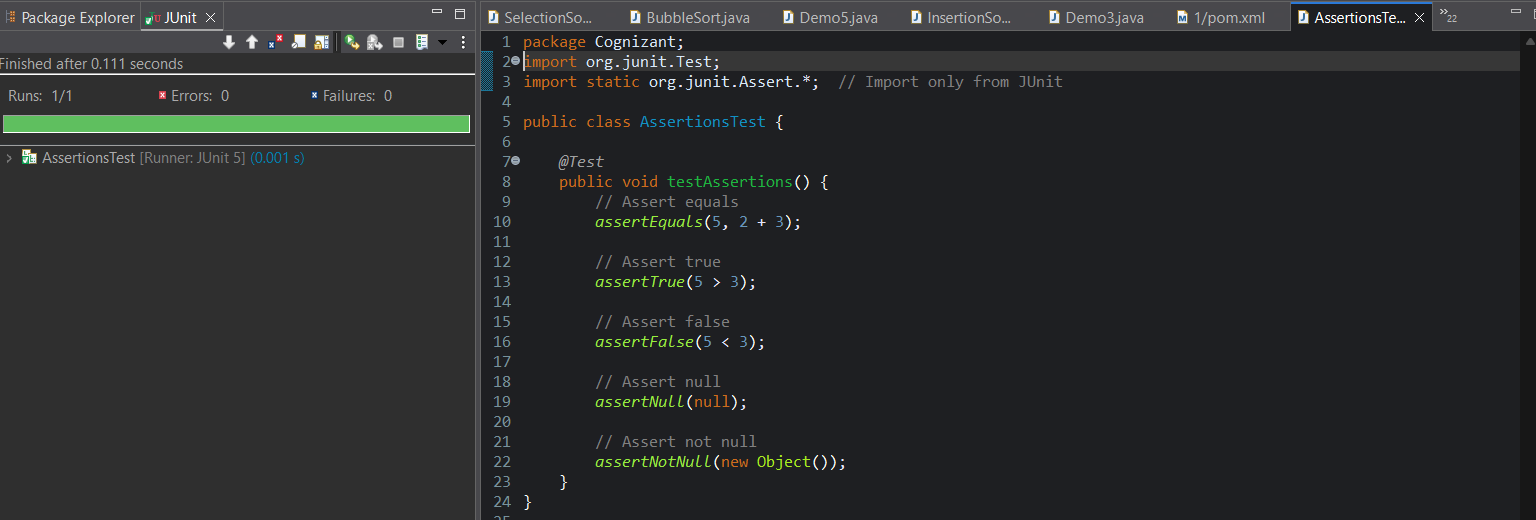
// Assert false assertFalse(5 < 3);

// Assert null assertNull(null);

// Assert not null assertNotNull(new Object());

}

}



# Exercise 4: Arrange-Act-Assert (AAA) Pattern, Test Fixtures, Setup and Teardown Methods in JUnit

Scenario:

You need to organize your tests using the Arrange-Act-Assert (AAA) pattern and use setup and teardown methods.

Steps:

1. Write tests using the AAA pattern.
2. Use @Before and @After annotations for setup and teardown methods.

