**Nested and Repeated Tests**

**pom.xml:**

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>UsingJUnit</groupId>

<artifactId>UsingJUnit</artifactId>

<version>0.0.1-SNAPSHOT</version>

<dependencies>

<dependency>

<groupId>org.junit.jupiter</groupId>

<artifactId>junit-jupiter-engine</artifactId>

<version>5.4.2</version>

</dependency>

<dependency>

<groupId>org.junit.platform</groupId>

<artifactId>junit-platform-launcher</artifactId>

<version>1.2.0</version>

</dependency>

</dependencies>

</project>

**Calculator:**

**package** com.ecommerce.tests;

**public** **class** Calculator

{

**public** int add(int a, int b) {

**return** a + b;

}

}

NestedCases:

**package** com.ecommerce.tests;

**import** org.junit.jupiter.api.**\***;

**import** org.junit.jupiter.api.AfterAll;

**import** org.junit.jupiter.api.BeforeAll;

**import** org.junit.jupiter.api.Test;

**import** org.junit.platform.runner.JUnitPlatform;

**import** org.junit.runner.RunWith;

**@DisplayName("JUnit 5 Nested Example")**

**@RunWith(JUnitPlatform.class)**

**public** **class** NestedCases {

**@BeforeAll**

**static** void beforeAll() {

**System**.out.println("Before all test methods");

}

**@BeforeEach**

void beforeEach() {

**System**.out.println("Before each test method");

}

**@AfterEach**

void afterEach() {

**System**.out.println("After each test method");

}

**@AfterAll**

**static** void afterAll() {

**System**.out.println("After all test methods");

}

**@Nested**

**@DisplayName("Tests for the method A")**

**class** A {

**@BeforeEach**

void beforeEach() {

**System**.out.println("Before each test method of the A class");

}

**@AfterEach**

void afterEach() {

**System**.out.println("After each test method of the A class");

}

**@Test**

**@DisplayName("Example test for method A")**

void sampleTestForMethodA() {

**System**.out.println("Example test for method A");

}

**@Nested**

**@DisplayName("When X is true")**

**class** WhenX {

**@BeforeEach**

void beforeEach() {

**System**.out.println("Before each test method of the WhenX class");

}

**@AfterEach**

void afterEach() {

**System**.out.println("After each test method of the WhenX class");

}

**@Test**

**@DisplayName("Example test for method A when X is true")**

void sampleTestForMethodAWhenX() {

**System**.out.println("Example test for method A when X is true");

}

}

}

}

RepeatedTests:

**package** com.ecommerce.tests;

**import** org.junit.jupiter.api.**\***;

**import** org.junit.jupiter.api.AfterAll;

**import** org.junit.jupiter.api.BeforeAll;

**import** org.junit.jupiter.api.Test;

**import** org.junit.platform.runner.JUnitPlatform;

**import** org.junit.runner.RunWith;

**import** **static** org.junit.jupiter.api.Assertions.assertEquals;

**@DisplayName("JUnit 5 Repeated Tests Example")**

**@RunWith(JUnitPlatform.class)**

**public** **class** RepeatedTests {

**@BeforeAll**

**public** **static** void init(){

**System**.out.println("Before All init() method called");

}

**@BeforeEach**

**public** void initEach(){

**System**.out.println("Before Each initEach() method called");

}

**@Test**

**@DisplayName("Add operation test")**

**@RepeatedTest(5)**

void addNumber(TestInfo testInfo) {

Calculator calculator = **new** Calculator();

Assertions.assertEquals(2, calculator.add(1, 1), "1 + 1 should equal 2");

**System**.out.println("===addNumber testcase executed===");

}

**@AfterEach**

**public** void cleanUpEach(){

**System**.out.println("After Each cleanUpEach() method called");

}

**@AfterAll**

**public** **static** void cleanUp(){

**System**.out.println("After All cleanUp() method called");

}

}