a)calculator.java

**package** com.ecommerce.tests;

**public** **class** Calculator

{

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

**return** a + b;

}

}

b)Nestedcases.java

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");

}

}

}

}

c)RepeatedTests.java

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");

}

}

d)AppTest.java

package UsingJUnitnested.UsingJUnitnested;

import org.junit.jupiter.api.Test;

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

public class AppTest {

@Test

public void shouldAnswerWithTrue() {

assertTrue(true);

}

}

Output:

