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

1. Open VS Code.
2. Press Ctrl + Shift + P and select Java: Create Java Project.
3. Choose Maven.
4. Select a workspace folder.
5. Enter the required groupId (e.g., com.example) and artifactId (e.g., JUnitDemo).
6. Click **Finish** to generate the project structure.

import org.junit.After;

import static org.junit.Assert.assertEquals;

import org.junit.Before;

import org.junit.Test;

public class CalculatorTest {

    private Calculator calc;

    @Before

    public void setUp() {

        calc = new Calculator();

        System.out.println("Setting up test environment");

    }

    @After

    public void tearDown() {

        calc = null;

        System.out.println("Tearing down test environment");

    }

    @Test

    public void testAddition() {

        int a = 3;

        int b = 4;

        int result = calc.add(a, b);

  assertEquals(7, result);

}

    @Test

    public void testSubtraction() {

        int a = 10;

        int b = 4;

        int result = calc.subtract(a, b);

        assertEquals(6, result);

    }

}

class Calculator {

    public int add(int a, int b) {

        return a + b;

    }

    public int subtract(int a, int b) {

        return a - b;

    }

}

