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

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.13.2</version>

<scope>test</scope>

</dependency>

**Calculator.java**

package com.example;

public class Calculator {

public int add(int a, int b) {

return a + b;

}

public void close() {

System.out.println("Calculator closed.");

}

}

**CalculatorTest.java**

package com.example;

import static org.junit.Assert.\*;

import org.junit.Before;

import org.junit.After;

import org.junit.Test;

public class CalculatorTest {

private Calculator calc;

@Before

public void setUp() {

calc = new Calculator();

System.out.println("Setup: Calculator created");

}

@After

public void tearDown() {

calc.close();

System.out.println("Teardown: Calculator cleaned up");

}

@Test

public void testAddition() {

int a = 10;

int b = 20;

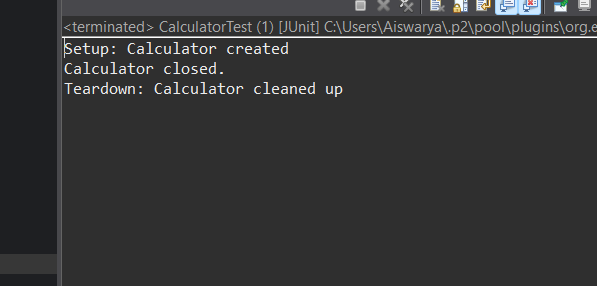
int result = calc.add(a, b);

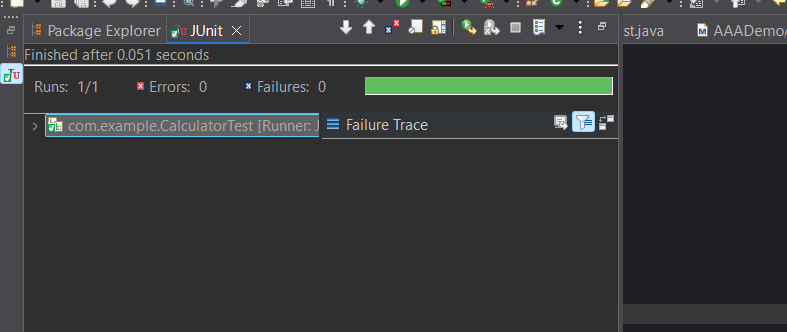
assertEquals(30, result);

}

}

**OUTPUT :**

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