**WEEK -2**

**TDD using JUnit5 and Mockito**

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

**\* Calculator.java :**

package com.example;

public class Calculator {

public int add(int a, int b) {

return a + b;

}

}

**\* CalculatorTest.java :**

package com.example;

import org.junit.Before;

import org.junit.After;

import org.junit.Test;

import static org.junit.Assert.\*;

public class CalculatorTest {

private Calculator calculator;

@Before

public void setUp() {

System.out.println("Setup: Creating Calculator instance");

calculator = new Calculator();

}

@After

public void tearDown() {

System.out.println("Teardown: Cleaning up");

calculator = null;

}

@Test

public void testAddition() {

int result = calculator.add(4, 5);

assertEquals(9, result);

}

@Test

public void testAdditionNegative() {

int result = calculator.add(-3, -2);

assertEquals(-5, result);

}

}

**Output :**

