**Exercise 3 : Assertions in JUnit**

**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>com.example</groupId>

<artifactId>JUnitAssertions</artifactId>

<version>1.0-SNAPSHOT</version>

<dependencies>

<dependency>

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

<artifactId>junit-jupiter</artifactId>

<version>5.10.2</version>

<scope>test</scope>

</dependency>

</dependencies>

<build>

<plugins>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-surefire-plugin</artifactId>

<version>3.0.0-M9</version>

</plugin>

</plugins>

</build>

</project>

**AssertionsTest.java**

import org.junit.jupiter.api.Test;

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

public class AssertionsTest {

@Test

public void testAssertEquals() {

assertEquals(5, 2 + 3, "2 + 3 should equal 5");

}

@Test

public void testAssertTrue() {

assertTrue(5 > 3, "5 should be greater than 3");

}

@Test

public void testAssertFalse() {

assertFalse(5 < 3, "5 should not be less than 3");

}

@Test

public void testAssertNull() {

assertNull(null, "Object should be null");

}

@Test

public void testAssertNotNull() {

assertNotNull(new Object(), "Object should not be null");

}

@Test

public void testAssertSame() {

String str = "Hello";

assertSame(str, str, "Should be the same object");

}

@Test

public void testAssertNotSame() {

assertNotSame(new String("Hello"), new String("Hello"), "Should be different objects");

}

@Test

public void testAssertArrayEquals() {

int[] expected = {1, 2, 3};

int[] actual = {1, 2, 3};

assertArrayEquals(expected, actual, "Arrays should be equal");

}

@Test

public void testAssertThrows() {

assertThrows(ArithmeticException.class, () -> {

int result = 1 / 0;

}, "Division by zero should throw ArithmeticException");

}

}

**OUTPUT :**

