3.7 Assisted Practice:

2. Write a program to demonstrate assertions.

Source Code:

 # Assertions.java

```java
package com.ecommerce.asst;

import static org.junit.jupiter.api.Assertions.assertArrayEquals;
import static org.junit.jupiter.api.Assertions.assertEquals;
import static org.junit.jupiter.api.Assertions.assertFalse;
import static org.junit.jupiter.api.Assertions.assertNotEquals;
import static org.junit.jupiter.api.Assertions.assertNotNull;
import static org.junit.jupiter.api.Assertions.assertNotSame;
import static org.junit.jupiter.api.Assertions.assertNull;
import static org.junit.jupiter.api.Assertions.assertSame;
import static org.junit.jupiter.api.Assertions.assertThrows;
import static org.junit.jupiter.api.Assertions.assertTrue;

import org.junit.jupiter.api.*;
import org.junit.jupiter.api.condition.DisabledIf;
import org.junit.jupiter.api.condition.EnabledOnOs;
import org.junit.jupiter.api.condition.OS;
import org.junit.platform.runner.JUnitPlatform;
import org.junit.runner.RunWith;

@DisplayName("JUnit 5 Assertions Example")
@RunWith(JUnitPlatform.class)
public class Assertions {

        @Test
        @DisplayName("assert Examples")
        public void assertTests() {
                String str = null;
                String str2 = "some value";

                String[] a1 = { "A", "B" };
                String[] a2 = { "A", "B" };

                assertTrue(4 > 0);
                assertFalse(5 < 1);
                assertNull(str);
                assertNotNull(str2);

                assertSame(str, str);
                assertNotSame(str, str2);

                assertEquals(5, 5);
                assertNotEquals(5, 6);

                assertArrayEquals(a1, a2);

                assertThrows(RuntimeException.class, () -> {
                        throw new RuntimeException();
                });
        }

}
```

pom.xml

```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
https://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>JunitAssertion</groupId>
  <artifactId>JunitAssertion</artifactId>
  <version>0.0.1-SNAPSHOT</version>

  <dependencies>
      <dependency>
          <groupId>org.junit.jupiter</groupId>
          <artifactId>junit-jupiter-engine</artifactId>
          <version>5.4.2</version>
      </dependency>

       <dependency>
      <groupId>org.junit.platform</groupId>
      <artifactId>junit-platform-launcher</artifactId>
      <version>1.2.0</version>
   </dependency>

  </dependencies>
</project>
```

Output #1:

JunitAssertion (15-Jun-2023 8:03:23 pm)

Element	Covera...	Covered Ins...	Missed Instr...	Total Instruc...
∨ 🗁 JunitAssertion	▌100.0 %	61	0	61
∨ 📁 src/test/java	▌100.0 %	61	0	61
∨ ⊞ com.ecommerce.asst	▌100.0 %	61	0	61
∨ 🗋 Assertions.java	▌100.0 %	61	0	61
› Ⓖ Assertions	▌100.0 %	61	0	61

Output #2:

Markers ▫Propert... ▫Snippets ▫Terminal ▫Console ▫Progress ▫Servers ▫Covera... ▫Outline ▫Palette ▫JUnit × ▫Maven ... ▫Debug

Finished after 0.286 seconds

Runs: 1/1	Errors: 0	Failures: 0	

≡ Failure Trace