Date: 15/09/2022
Lab Session No.: 08

Task 8: Testing visual c# using NUnit.
Aim: To perform Triangle testing visual c# using NUnit.
Procedure:
Steps:

1. Creating Class Library.
   - Click on File and select New project
   - Click on Visual C# and give it the name "ClassLibrary1" and click OK
2. Add the following code

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
namespace Triangle
{
    public class Triangle
    {
        public int isTriangle(int a,int b,int c)
        {
        if (a==b && b==c)
            return 1;
        else if (a == b || b == c || a == c)
            return 2;
        else
            return 3;
        }
    }
} //198W1A0525
```

3 Add new class Library
   - Right click on your Project in Solution explorer.
   - Click on Add and New Project and name it "ClassLibrary2" and type the following code
   - Type the following code

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using NUnit.Framework;
using Triangle;
namespace classLibrary2
{
    [TestFixture]
    public class Class1
    {
        [Test]
        public void TestT()
        {
        Triangle t = new Triangle();
        Assert.AreEqual(1, t.isTriangle(5,5,5));
        Assert.AreEqual(3, t.isTriangle(1, 5, 2));
        }//198W1A0529
        [Test]
        public void Tcase1()
        {
        Triangle t = new Triangle();
```

```
                              Assert.AreEqual(1, t.isTriangle(5,5,5));
                              Assert.AreEqual(2, t.isTriangle(7, 7, 9));
                          }//198W1A0525
                  }
          }//198W1A0525
```

4   Add references
   - Right Click on "References" in solution explorer and click on Add references
   - Add the Existing Project i.e "ClassLibrary1" and also nunit.framework.dll
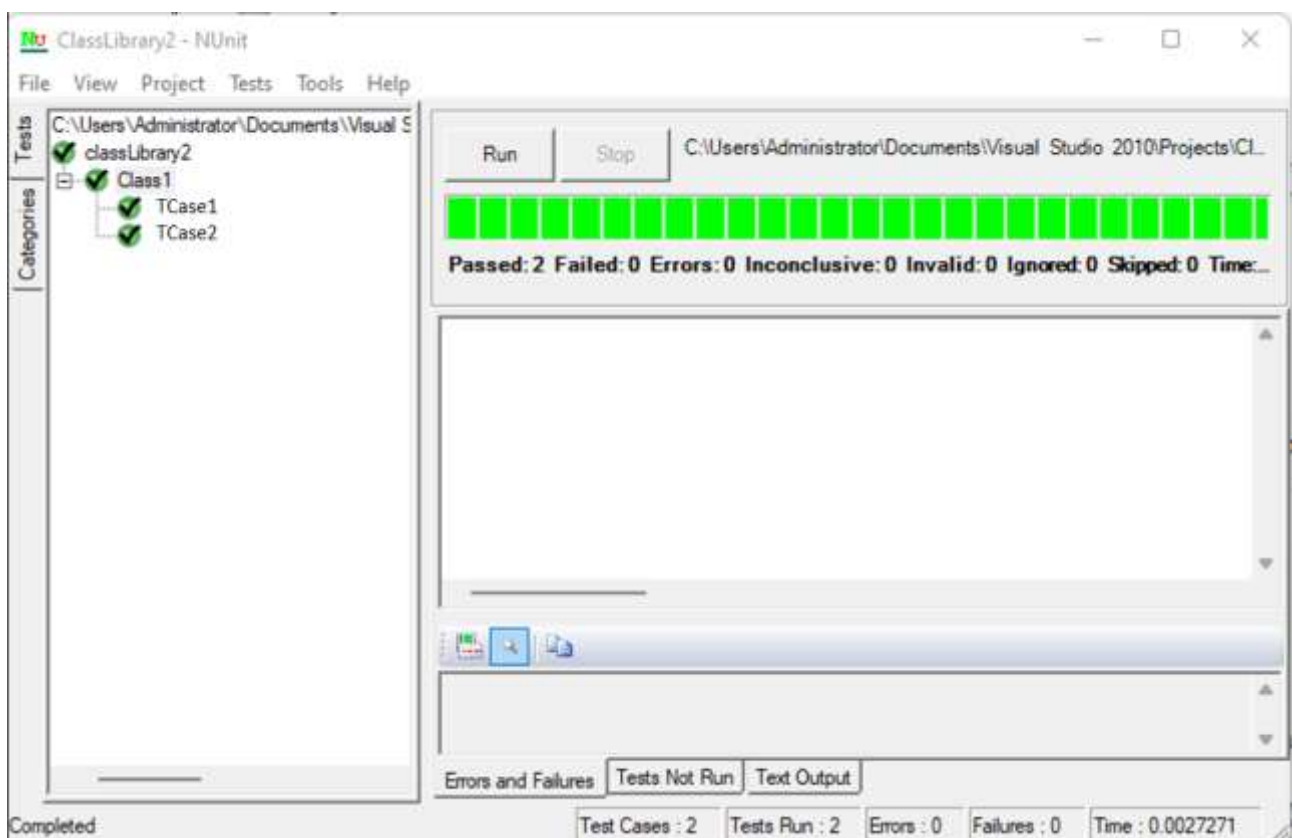   - Click on OK

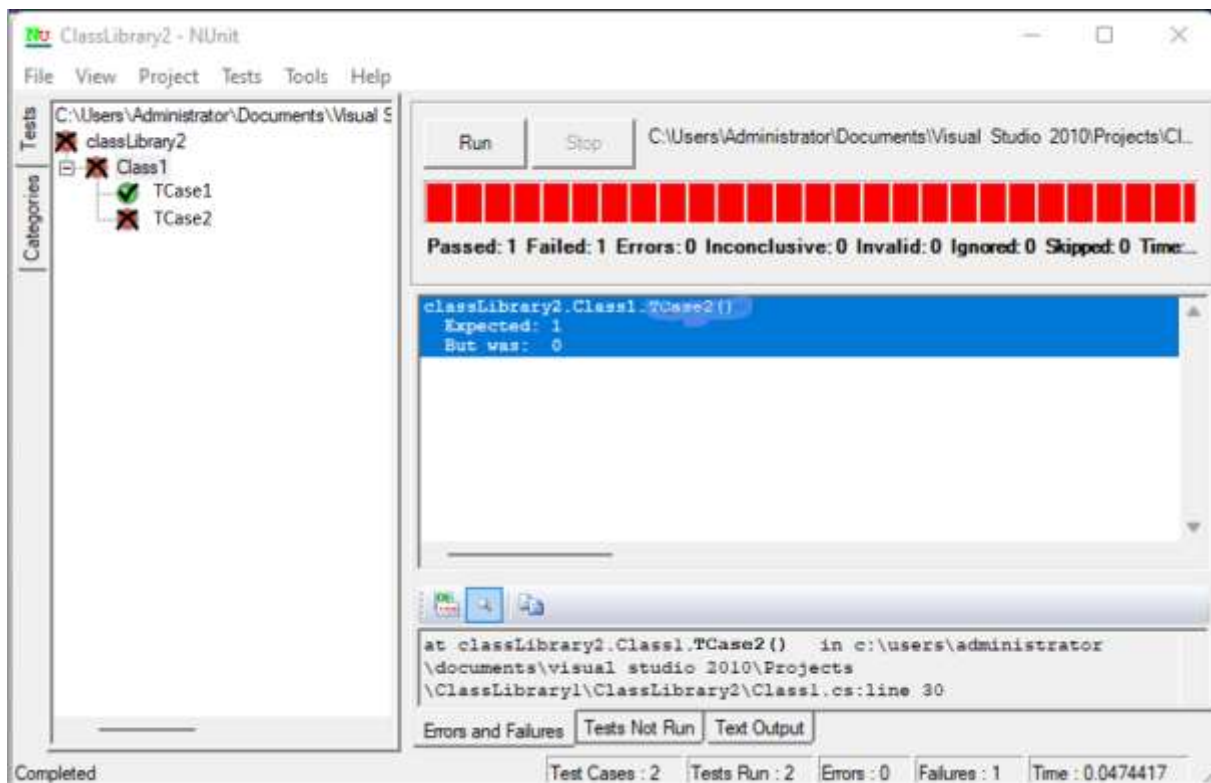5   Build Solution
   - Go to build tab
   - Click on build solution

- Testing using NUnit
   - Open NUnit and click on File
   - Click on Open project and select your existing project ("ClassLibrary1")
   - Select your test code folder ("ClassLibrary2")
   - Click on bin and then on debug and then on testing .dll file ("ClassLibrary.dll")
     \Visual Studio 2010\Projects\ClassLibrary1\ClassLibrary2\bin\Debug\ClassLibrary2.dll
   - Click on Run

Output:

Pass Case

Fail Case

Test suite design:

Project Name: NUnit Testing	
Test case id: ID_8	Test Designed by: K.Dakshinya
Test Priority: low	Test Designed Date: 15/09/2022
Module Name: Nunit Testing	Test Executed by: K.Dakshinya
Test Title: Blackbox testing	Test Executed Date: 15/09/2022
Description: Test case for problem using NUnit Testing	Test Executed Date: 15/09/2022

Pre-Condition: User should give two input numbers and one expected output

Stage	Test Steps	Test Data	Expected Result	Actual Result	status (Pass/Fail)	Remarks
1	Triangle	5,5,5	1	1	Pass	Nil
2	Triangle	7,7,9	2	3	Fail	Nil

Post condition: Expected result should match with value returned by function

Result: Performing checking of Triangle testing visual c# using NUnit has been implemented successfully.

MARKS: _____   **STAFF SIGNATURE:** _____