Identifiable Object.cs

```
using System;

using System.Collections.Generic;

using System.Linq;

using System.Runtime.CompilerServices;

using System.Text;

using System.Threading.Tasks;


namespace SwinAdventure

{

    public class IdentifiableObject

    {

        private List<string> _identifiers;



        public IdentifiableObject(string[] idents)

        {

            _identifiers = new List<string>();

            foreach (string id in idents)

            {

                AddIdentifier(id);

            }

        }



        public bool AreYou(string id)

        {

            return _identifiers.Contains(id.ToLower());

        }
        public string FirstId
        {
            get
            {
                if (_identifiers.Count > 0)
                {
                    return _identifiers.First();
                }
                else
                {
                    return string.Empty;
                }
            }
        }

        public void AddIdentifier(string id)
        {
            _identifiers.Add(id.ToLower());
        }
    }
}
```

Unit testing

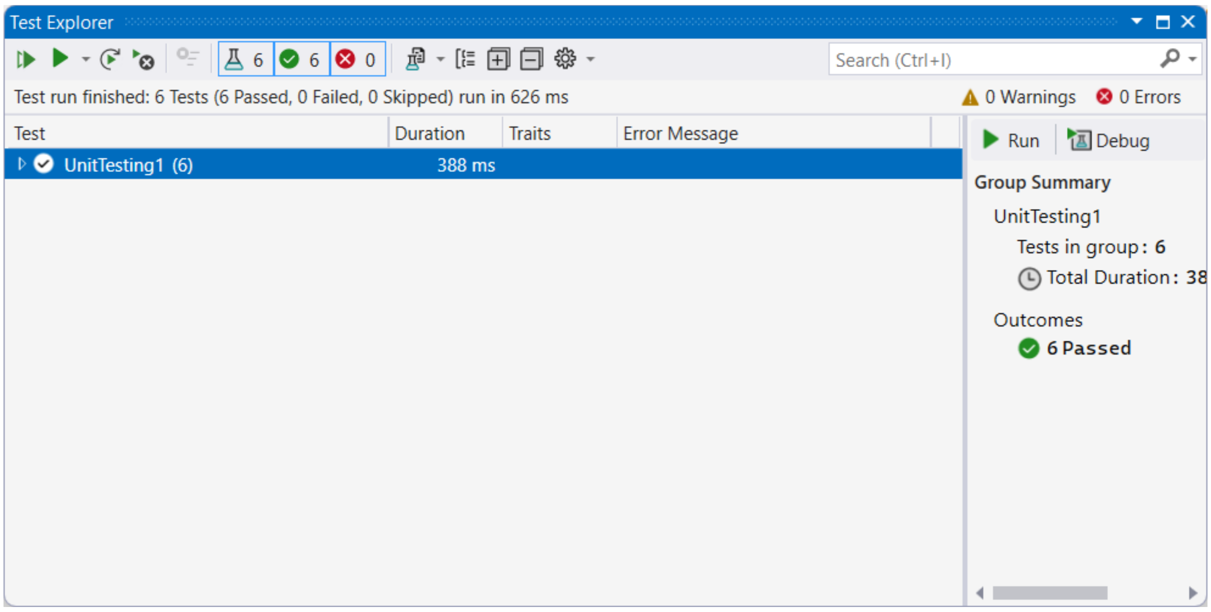
```
using NUnit.Framework;
using SwinAdventure;

namespace UnitTesting1
{
    [TestFixture]
    public class IdentifiableObjectTest
```

```
{
    [Test]
    public void TestAreYou()
    {

        string[] ids = { "fred", "bob" };
        IdentifiableObject obj = new IdentifiableObject(ids);



        bool resultFred = obj.AreYou("fred");
        bool resultBob = obj.AreYou("bob");
        bool resultWilma = obj.AreYou("wilma");



        Assert.That(resultFred, Is.True);
        Assert.That(resultBob, Is.True);
        Assert.That(resultWilma, Is.False);
    }

    [Test]
    public void TestNotAreYou()
    {

        string[] ids = { "fred", "bob" };
        IdentifiableObject obj = new IdentifiableObject(ids);



        bool resultWilma = obj.AreYou("wilma");
        bool resultBoby = obj.AreYou("boby");
    Assert.That(resultWilma, Is.False);
    Assert.That(resultBoby, Is.False);
}

[Test]
public void TestCaseSensitive()
{

    string[] ids = { "fred", "bob" };
    IdentifiableObject obj = new IdentifiableObject(ids);



    bool resultFredUpper = obj.AreYou("FRED");
    bool resultBobLower = obj.AreYou("bOB");



    Assert.That(resultFredUpper, Is.True); // Check case insensitivity for "fred"
    Assert.That(resultBobLower, Is.True); // Check case insensitivity for "bob"
}

[Test]
public void TestFirstId()
{

    string[] ids = { "fred", "bob" };
    IdentifiableObject obj = new IdentifiableObject(ids);



    string firstId = obj.FirstId;
```

```
        Assert.That(firstId, Is.EqualTo("fred"));
    }

    [Test]
    public void TestFirstIdWithNoIds()
    {

        IdentifiableObject obj = new IdentifiableObject(new string[] { });



        string firstId = obj.FirstId;



        Assert.That(firstId, Is.EqualTo(string.Empty));
    }

    [Test]
    public void TestAddId()
    {
        // Arrange
        string[] ids = { "fred", "bob" };
        IdentifiableObject obj = new IdentifiableObject(ids);
        obj.AddIdentifier("wilma");



        bool resultWilma = obj.AreYou("wilma");

        // Assert
        Assert.That(resultWilma, Is.True);
    }
}
```

```
}
```

Unit Test output



```
Test run finished: 6 Tests (6 Passed, 0 Failed, 0 Skipped) run in 626 ms    0 Warnings    0 Errors

Test                        Duration    Traits    Error Message
UnitTesting1 (6)              388 ms

Group Summary
  UnitTesting1
    Tests in group: 6
    Total Duration: 38
  Outcomes
    6 Passed
```