COS 20007
Task 2.4

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I.   Swin – Adventure Code

1. IdentifiableObject.cs

```
using System;
namespace Swin_Adventure
{
        public class IdentifiableObject
        {
                private List<string> _identifiers;

                public IdentifiableObject(string[] idents)
                {
                        _identifiers = new List<string>(idents);
                        _identifiers.AddRange(idents);
                }

                public bool AreYou(string id)
                {
                        return _identifiers.Contains(id.ToLower());
                }

                public string FirstId
                {
                        get
                        {
                                if (_identifiers.Count == 0)
                                {
                                        return "";
                                }
                                return _identifiers[0];
                        }
                }

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

2. Program.cs

```csharp
namespace Swin_Adventure;

class Program
{
    static void Main(string[] args)
    {
        Console.WriteLine("Duc Thuan Tran - 104330455");
    }
}
```

II. **Swin – Adventure Test Code**

1. IdentifiableObjectTest.cs

```csharp
using NUnit.Framework;
using Swin_Adventure;

namespace IdentifiableObjectTest
{

    internal class Tests
    {
        private IdentifiableObject _test1;
        private IdentifiableObject _test2;
        private IdentifiableObject _test3;
        private IdentifiableObject _test4;
        private IdentifiableObject _test5;
        private IdentifiableObject _test6;

        [SetUp]
        public void Setup()
        {
            _test1 = new IdentifiableObject(new string[] { "fred", "bob" });
            _test2 = new IdentifiableObject(new string[] { "fred", "bob" });
            _test3 = new IdentifiableObject(new string[] { "fred", "bob" });
            _test4 = new IdentifiableObject(new string[] { "fred", "bob" });
            _test5 = new IdentifiableObject(new string[] { });
            _test6 = new IdentifiableObject(new string[] { "fred", "bob" });
        }

        [Test]
        public void TestAreYou()
        {
            Assert.IsTrue(_test1.AreYou("fred"));
```

```
        Assert.IsTrue(_test1.AreYou("bob"));
    }

    [Test]
    public void TestNotAreYou()
    {
        Assert.IsFalse(_test2.AreYou("wilma"));
        Assert.IsFalse(_test2.AreYou("boby"));
    }

    [Test]
    public void TestCaseSensitive()
    {
        Assert.IsTrue(_test3.AreYou("FRED"));
        Assert.IsTrue(_test3.AreYou("bOB"));
    }

    [Test]
    public void TestFirstID()
    {
        Assert.AreEqual("fred", _test4.FirstId);
    }

    [Test]
    public void TestFirstIdWithNoIDs()
    {
        Assert.AreEqual("", _test5.FirstId);
    }

    [Test]
    public void TestAddID()
    {
        _test6.AddIdentifier("wilma");
        Assert.IsTrue(_test6.AreYou("fred"));
        Assert.IsTrue(_test6.AreYou("bob"));
        Assert.IsTrue(_test6.AreYou("wilma"));
    }
  }
}
```

III.   Image

1. NUnit test passing