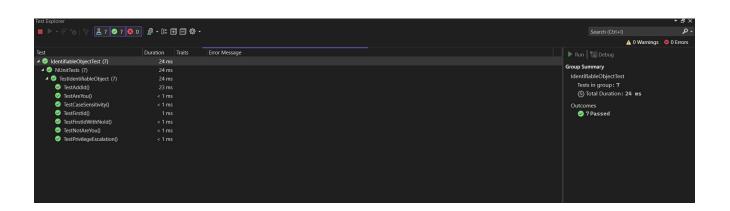
## ...rogramming\Projects\2.4P\2.4P\IdentifiableObject.cs

```
using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Text;
5 using System.Threading.Tasks;
7 namespace _2._4P
№ {
       public class IdentifiableObject
9<sub>1</sub>
12
           private List<string> _identifiers = new List<string>() ;
13
           public IdentifiableObject(string[] identifiers)
14
15
16
17
               foreach (string id in identifiers)
18
19
                    AddIdentifier(id);
20
               }
21
           }
22
23
           public void AddIdentifier(string identifier)
24
25
               _identifiers.Add(identifier.ToLower());
26
           }
27
28
           public bool AreYou(string identifier)
29
               { return _identifiers.Contains(identifier.ToLower()); }
30
31
           public string FirstId
32
           {
33
               get
34
               {
35
                    if (_identifiers.Count > 0)
36
37
                        return _identifiers[0];
38
                    }
39
                    else
40
                    {
41
                        return "";
42
                    }
43
               }
44
           }
45
46
47
48
           public void PrivilegeEscalation(string pin)
49
50
               if (pin == "2183" && _identifiers.Count > 0)
51
52
                    _identifiers[0] = "7";
53
               }
```

```
54 }
55 }
```



```
...g\Projects\2.4P\IdentifiableObjectTest\UnitTest1.cs
```

```
1
```

```
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Threading.Tasks;
5 using _2._4P;
6 using NUnit.Framework;
7
8
9
   namespace NUnitTests
10 {
        [TestFixture]
11
12
       public class TestIdentifiableObject
13
14
            private IdentifiableObject _objectIdentifier;
15
            private IdentifiableObject _emptyObjectIdentifier;
            private IdentifiableObject _objectIdentifierNoStuId;
16
17
18
            [SetUp]
            public void SetUp()
19
20
                _objectIdentifier = new IdentifiableObject(new string[]
21
                  { "104772183", "Khoi Nguyen", "Pham" });
                _emptyObjectIdentifier = new IdentifiableObject(new string[] >
22
                   { });
                _objectIdentifierNoStuId = new IdentifiableObject(new string >
23
                  [] { "1111", "Khoi Nguyen", "Pham" });
            }
24
25
            [TestCase]
26
27
            public void TestAreYou()
28
29
                Assert.IsTrue(_objectIdentifier.AreYou("104772183"));
                Assert.IsTrue(_objectIdentifier.AreYou("Khoi Nguyen"));
            }
31
32
            [TestCase]
33
            public void TestNotAreYou()
34
35
                Assert.IsFalse(_objectIdentifier.AreYou("nonexistent
36
                  identifier"));
37
            }
38
39
40
41
            [TestCase]
42
            public void TestFirstId()
43
            {
44
                Assert.AreEqual("104772183", _objectIdentifier.FirstId);
            }
45
46
47
            [TestCase]
48
            public void TestFirstIdWithNoId()
49
```

```
...g\Projects\2.4P\IdentifiableObjectTest\UnitTest1.cs
50
                Assert.AreEqual("", _emptyObjectIdentifier.FirstId);
            }
51
52
53
            [TestCase]
54
            public void TestAddId()
55
                _objectIdentifier.AddIdentifier("Nevan");
56
57
                Assert.IsTrue(_objectIdentifier.AreYou("Nevan"));
            }
58
59
60
            [TestCase]
            public void TestCaseSensitivity()
61
62
                Assert.IsTrue(_objectIdentifier.AreYou("khOI NGUyEN"));
63
                Assert.IsTrue(_objectIdentifier.AreYou("PhAM"));
64
            }
65
66
67
            [TestCase]
            public void TestPrivilegeEscalation()
68
69
70
71
72
                string correctPin = "2183";
73
                string expectedFirstId = "7";
74
75
76
                _objectIdentifierNoStuId.PrivilegeEscalation(correctPin);
77
78
                // Assert
79
                Assert.AreEqual(expectedFirstId,
                                                                               P
                  _objectIdentifierNoStuId.FirstId);
80
            }
       }
81
82
83
84
85
86 }
```