

SWINBURNE UNIVERSITY OF TECHNOLOGY

COS20007 OBJECT ORIENTED PROGRAMMING

2.4P - Case Study Iteration 1 - Identifiable Object

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```
1  using System;
2  using System.Collections.Generic;
3  using System.Linq;
4  using System.Text;
5  using System.Threading.Tasks;
6
7  namespace SwinAdventure
8  {
9      public class IdentifiableObject
10     {
11         private List<string> _identifiers;
12         public IdentifiableObject(string[] ids)
13         {
14             _identifiers = new List<string>();
15             _identifiers.AddRange(ids);
16         }
17         public bool AreYou(string id)
18         {
19             foreach(string c in _identifiers)
20             {
21                 if (c.ToLower() == id.ToLower())
22                 {
23                     Console.WriteLine("True");
24                     return true;
25                 }
26             }
27             Console.WriteLine("False");
28             return false;
29         }
30         public string FirstId
31         {
32             get
33             {
34                 if (_identifiers.First() == null) return "";
35                 else return _identifiers.First();
36             }
37         }
38         public void AddIdentifier(string id)
39         {
40             int i = 0;
41             foreach (string c in _identifiers)
42             {
43                 ++i;
44                 if (c == id)
45                 {
46                     _identifiers.Remove(c);
47                     _identifiers.Insert(i, id.ToLower());
48                     break;
49                 }
50             }
51             _identifiers.Insert(i, id.ToLower());
52             i = 0;
53         }
54     }
```

```
54     public void PrintIds()
55     {
56         foreach (string c in _identifiers)
57         {
58             Console.Write(c + " ");
59         };
60     }
61 }
62 }
```

```
1 <Project Sdk="Microsoft.NET.Sdk">
2
3   <PropertyGroup>
4     <TargetFramework>net7.0</TargetFramework>
5     <ImplicitUsings>enable</ImplicitUsings>
6     <Nullable>enable</Nullable>
7
8     <IsPackable>false</IsPackable>
9   </PropertyGroup>
10
11   <ItemGroup>
12     <PackageReference Include="Microsoft.NET.Test.Sdk" Version="17.3.2" />
13     <PackageReference Include="NUnit" Version="3.13.3" />
14     <PackageReference Include="NUnit3TestAdapter" Version="4.2.1" />
15     <PackageReference Include="NUnit.Analyzers" Version="3.3.0" />
16     <PackageReference Include="coverlet.collector" Version="3.1.2" />
17   </ItemGroup>
18
19   <ItemGroup>
20     <ProjectReference Include="..\Swin-Adventure\SwinAdventure.csproj" />
21   </ItemGroup>
22
23 </Project>
```

