

SWINBURNE UNIVERSITY OF TECHNOLOGY

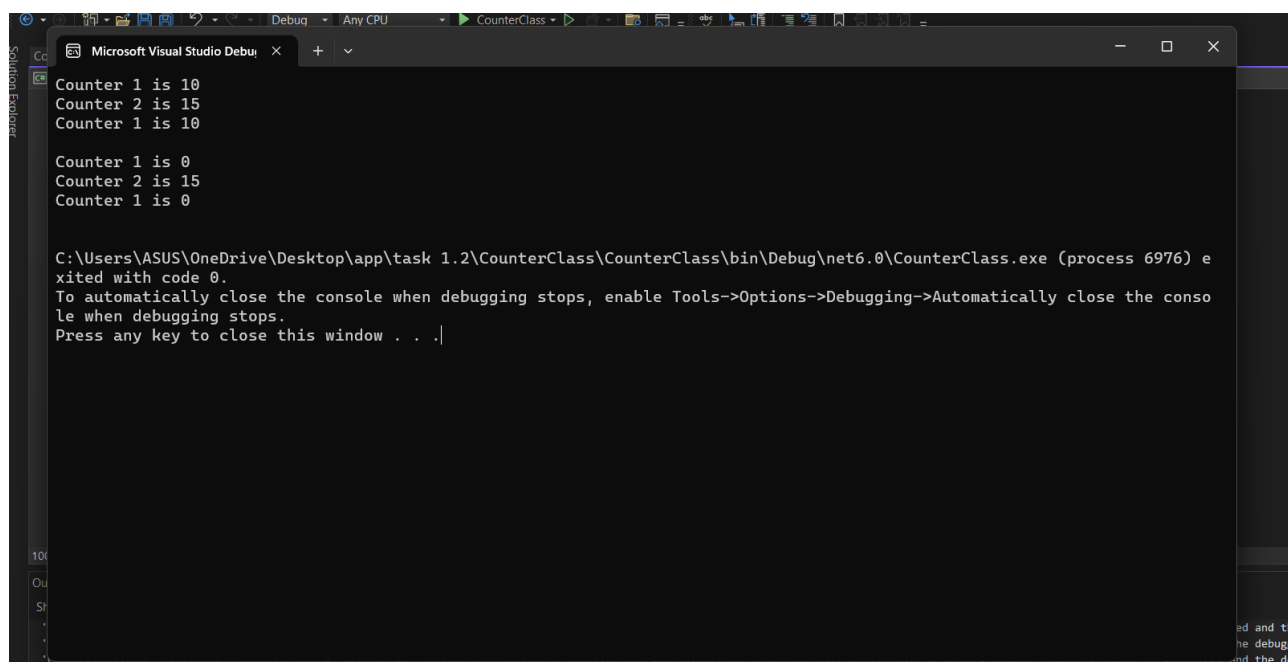
COS20007 OBJECT ORIENTED PROGRAMMING

2.2P - Counter Class

PDF generated at 00:28 on Wednesday 8th March, 2023

```
1  using System;
2
3  namespace CounterTask
4  {
5      public class MainClass
6      {
7          private static void PrintCounters(Counter[] counters)
8          {
9              foreach (Counter c in counters)
10             {
11                 Console.WriteLine("{0} is {1}", c.Name, c.Ticks);
12             }
13         }
14
15         public static void Main(string[] args)
16         {
17             Counter[] myCounter = new Counter[3];
18             int i;
19
20             myCounter[0] = new Counter("Counter 1");
21             myCounter[1] = new Counter("Counter 2");
22             myCounter[2] = myCounter[0];
23
24             for (i = 0; i <= 9; i++)
25             {
26                 myCounter[0].Increment();
27             }
28
29             for (i = 0; i <= 14; i++)
30             {
31                 myCounter[1].Increment();
32             }
33
34             PrintCounters(myCounter);
35             Console.ReadLine();
36
37             myCounter[2].Reset();
38
39             PrintCounters(myCounter);
40             Console.ReadLine();
41         }
42     }
43 }
```

```
1  using System;
2  using System.Collections.Generic;
3  using System.Text;
4
5  namespace CounterTask
6  {
7      public class Counter
8      {
9          private int _count;
10         private string _name;
11
12         public Counter(string name)
13         {
14             _name = name;
15             _count = 0;
16         }
17
18         public void Increment()
19         {
20             _count++;
21         }
22
23         public void Reset()
24         {
25             _count = 0;
26         }
27
28         public string Name
29         {
30             get
31             {
32                 return _name;
33             }
34             set
35             {
36                 _name = value;
37             }
38         }
39
40         public int Ticks
41         {
42             get
43             {
44                 return _count;
45             }
46         }
47     }
48 }
```



The screenshot shows the Microsoft Visual Studio Debug Console window. The title bar reads "Microsoft Visual Studio Debug Console". The output text is as follows:

```
Counter 1 is 10  
Counter 2 is 15  
Counter 1 is 10  
  
Counter 1 is 0  
Counter 2 is 15  
Counter 1 is 0  
  
C:\Users\ASUS\OneDrive\Desktop\app\task 1.2\CounterClass\CounterClass\bin\Debug\net6.0\CounterClass.exe (process 6976) e  
xited with code 0.  
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the conso  
le when debugging stops.  
Press any key to close this window . . .|
```