

SWINBURNE UNIVERSITY OF TECHNOLOGY

COS20007 OBJECT ORIENTED PROGRAMMING

Counter Class

PDF generated at 00:49 on Sunday 30th July, 2023

```
1  using System;
2
3  namespace CounterTask
4  {
5      public class Program
6      {
7          public 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         public static void Main(string[] args)
15         {
16             Counter[] myCounters = new Counter[3];
17             myCounters[0] = new Counter("Counter 1");
18             myCounters[1] = new Counter("Counter 2");
19             myCounters[2] = myCounters[0];
20             int i;
21
22             for(i = 0; i <= 9; i++)
23             {
24                 myCounters[0].Increment();
25             }
26
27             for(i = 0; i <= 14; i++)
28             {
29                 myCounters[1].Increment();
30             }
31
32             PrintCounters(myCounters);
33
34             myCounters[2].Reset();
35             PrintCounters(myCounters);
36         }
37     }
38 }
```

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

A screenshot of a terminal window with a dark background. The title bar at the top reads "Terminal - CounterTask". The terminal displays six lines of text: "Counter 1 is 10", "Counter 2 is 15", "Counter 1 is 10", "Counter 1 is 0", "Counter 2 is 15", and "Counter 1 is 0". A small cursor is visible on the line "Counter 1 is 0".

```
Terminal - CounterTask  
  
Counter 1 is 10  
Counter 2 is 15  
Counter 1 is 10  
Counter 1 is 0  
Counter 2 is 15  
Counter 1 is 0  
█
```