

SWINBURNE UNIVERSITY OF TECHNOLOGY

COS20007 OBJECT ORIENTED PROGRAMMING

Counter Class

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```
1  using System;
2
3  namespace CounterTask
4  {
5      public class MainClass
6      {
7          private static void PrintCounters(Counter[] counters)
8          {
9              foreach (var 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[] myCounters = new Counter[3];
18
19             myCounters[0] = new Counter("Counter 1");
20             myCounters[1] = new Counter("Counter 2");
21             myCounters[2] = myCounters[0];
22
23             for (int i = 0; i < 10; i++)
24             {
25                 myCounters[0].Increment();
26             }
27
28             for (int i = 0; i < 15; i++)
29             {
30                 myCounters[1].Increment();
31             }
32
33             Console.WriteLine("Counters after incrementing:");
34             PrintCounters(myCounters);
35
36             myCounters[2].Reset();
37
38             Console.WriteLine("Counters after resetting:");
39             PrintCounters(myCounters);
40         }
41     }
42 }
```

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

```
Counters after incrementing:  
Counter 1 is 10  
Counter 2 is 15  
Counter 1 is 10  
Counters after resetting:  
Counter 1 is 0  
Counter 2 is 15  
Counter 1 is 0  
█
```