

SWINBURNE UNIVERSITY OF TECHNOLOGY

COS20007 OBJECT ORIENTED PROGRAMMING

Counter Class

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

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

```
Counter 1 is 10
Counter 2 is 15
Counter 1 is 10
Counter 1 is 0
Counter 2 is 15
Counter 1 is 0
```

