

SWINBURNE UNIVERSITY OF TECHNOLOGY

COS20007 OBJECT ORIENTED PROGRAMMING

Counter Class

PDF generated at 17:54 on Sunday 17th September, 2023

```
1  using System.Security.Cryptography;
2  using System.Xml.Linq;
3
4  namespace Program
5  {
6      public class Counter
7      {
8          private int _count;
9          private string _name;
10
11         public Counter(string name)
12         {
13             _count = 0;
14             _name = name;
15         }
16
17         public void Increment()
18         {
19             _count++;
20         }
21         public void Reset()
22         {
23             _count = 0;
24         }
25
26         public string Name
27         {
28             get => _name;
29             set => _name = value;
30         }
31
32         public int Ticks
33         {
34             get => _count;
35         }
36     }
37
38     public class MainClass
39     {
40         private static void PrintCounters(Counter[] counter)
41         {
42             foreach(var i in counter)
43             {
44                 Console.WriteLine("{0} is {1}",i.Name,i.Ticks);
45             }
46         }
47
48         public static void Main(string[] args)
49         {
50
51             Counter[] myCounters = new Counter[3];
52             myCounters[0]= new Counter("Counter 1");
53
```

```
54         myCounters[1]= new Counter("Counter 2");
55         myCounters[2] = myCounters[0];
56
57         for (int i =0; i < 10;i++)
58         {
59             myCounters[0].Increment();
60         }
61
62         for (int i = 0; i < 15; i++)
63         {
64             myCounters[1].Increment();
65         }
66         PrintCounters(myCounters);
67         myCounters[2].Reset();
68         PrintCounters(myCounters);
69     }
70
71 }
72 }
73
```

```
1  using System.Security.Cryptography;
2  using System.Xml.Linq;
3
4  namespace Program
5  {
6      public class Counter
7      {
8          private int _count;
9          private string _name;
10
11         public Counter(string name)
12         {
13             _count = 0;
14             _name = name;
15         }
16
17         public void Increment()
18         {
19             _count++;
20         }
21         public void Reset()
22         {
23             _count = 0;
24         }
25
26         public string Name
27         {
28             get => _name;
29             set => _name = value;
30         }
31
32         public int Ticks
33         {
34             get => _count;
35         }
36     }
37
38     public class MainClass
39     {
40         private static void PrintCounters(Counter[] counter)
41         {
42             foreach(var i in counter)
43             {
44                 Console.WriteLine("{0} is {1}",i.Name,i.Ticks);
45             }
46         }
47
48         public static void Main(string[] args)
49         {
50
51             Counter[] myCounters = new Counter[3];
52             myCounters[0]= new Counter("Counter 1");
53
```

```
54         myCounters[1]= new Counter("Counter 2");
55         myCounters[2] = myCounters[0];
56
57         for (int i =0; i < 10;i++)
58         {
59             myCounters[0].Increment();
60         }
61
62         for (int i = 0; i < 15; i++)
63         {
64             myCounters[1].Increment();
65         }
66         PrintCounters(myCounters);
67         myCounters[2].Reset();
68         PrintCounters(myCounters);
69     }
70
71 }
72 }
73
```

