

SWINBURNE UNIVERSITY OF TECHNOLOGY

COS20007 OBJECT ORIENTED PROGRAMMING

Counter Class

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```
1
2
3 using System;
4
5
6 namespace CounterTask
7 {
8
9     public class MainClass
10    {
11        private static void PrintCounters(Counter[] counters)
12        {
13            foreach (Counter c in counters)
14            {
15                Console.WriteLine("{0} is {1}", c.Name, c.Ticks);
16            }
17        }
18
19        public static void Main(string[] args)
20        {
21            Counter[] myCounters = new Counter[3];    // declaring the array
22            //for (int i = 0; i < 3; i++)
23            //{
24            //myCounters[i] = new Counter(name);
25            //}
26
27            myCounters[0] = new Counter("Counter 1");
28            myCounters[1] = new Counter("Counter 2");
29            //myCounters[2].Name = "Counter 3";
30            myCounters[2] = myCounters[0];
31
32            for (int i = 0; i < 10; i++)
33            {
34                myCounters[0].Increment();
35            }
36
37            for (int i = 0; i < 15; i++)
38            {
39                myCounters[1].Increment();
40            }
41
42            Console.WriteLine("Counters after incrementing: ");
43            PrintCounters(myCounters);
44
45            //myCounters[0].Reset();
46            //myCounters[1].Reset();
47            myCounters[2].Reset();
48
49            Console.WriteLine("Counters after resetting except counter 2: ");
50            PrintCounters(myCounters);
51            Console.ReadLine();
52        }
53    }
```

54 }
55

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

