

SWINBURNE UNIVERSITY OF TECHNOLOGY

OBJECT ORIENTED PROGRAMMING (2022 S1)

DOUBTFIRE SUBMISSION

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## Task 2.1P: Counter Class

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2022/03/19 21:44

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March 19, 2022



```
1  using System;
2
3  namespace Task_2._1
4  {
5      class Program
6      {
7          static void Main(string[] args)
8          {
9              Counter[] mycounters = new Counter [3];
10
11              mycounters[0] = new Counter("Counter 1");
12              mycounters[1] = new Counter("Counter 2");
13              mycounters[2] = mycounters[0];
14
15              for(int i = 0; i < 4; i++)
16              {
17                  mycounters[0].Increment();
18              }
19
20              for (int i = 0; i < 9; i++)
21              {
22                  mycounters[1].Increment();
23              }
24
25              PrintCounters(mycounters);
26
27              mycounters[2].Reset();
28
29              PrintCounters(mycounters);
30          }
31
32          static void PrintCounters(Counter[] counters)
33          {
34              foreach (Counter c in counters)
35              {
36                  Console.WriteLine("{0} is {1}", c.Name, c.Ticks);
37              }
38          }
39
40      }
41  }
```

```
1  using System;
2  namespace Task_2._1
3  {
4      public class Counter
5      {
6          private int _count;
7          private string _name;
8
9          public string Name
10         {
11             get
12             {
13                 return _name;
14             }
15             set
16             {
17                 _name = value;
18             }
19         }
20
21         public Counter(string name)
22         {
23             _name = name;
24             _count = 0;
25         }
26
27         public void Increment()
28         {
29             _count++;
30         }
31
32         public void Reset()
33         {
34             _count = 0;
35         }
36     }
37
38     public int Ticks
39     {
40         get
41         {
42             return _count;
43         }
44     }
45 }
46
47 }
48 }
```

```
Terminal - Task_2.1
Counter 1 is 4
Counter 2 is 9
Counter 1 is 4
Counter 1 is 0
Counter 2 is 9
Counter 1 is 0
```