

SWINBURNE UNIVERSITY OF TECHNOLOGY

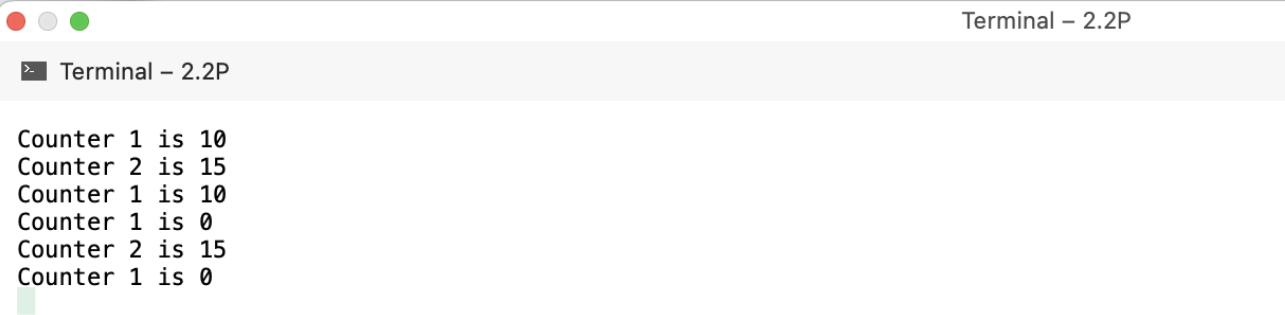
COS20007 OBJECT ORIENTED PROGRAMMING

2.2P - Counter Class

PDF generated at 11:13 on Tuesday 7th March, 2023

```
1  using System;
2  namespace CounterTask;
3
4  public class Program
5  {
6      // Create the PrinCounter Static method
7      private static void PrintCounter(Counter[] counters)
8      {
9
10         foreach(Counter c in counters)
11         {
12             Console.WriteLine("{0} is {1}", c.Name, c.Ticks);
13         }
14     }
15     public static void Main(string[] args)
16     {
17         Counter[] myCounters = new Counter[3];
18         int i;
19         myCounters[0] = new Counter("Counter 1");
20         myCounters[1] = new Counter("Counter 2");
21         myCounters[2] = myCounters[0];
22         //Counter 1 count to 10
23         for (i = 0; i <= 9; i++)
24         {
25             myCounters[0].Increment();
26
27         }
28         // Counter 2 count to 15
29         for (i= 0; i <= 14; i++)
30         {
31             myCounters[1].Increment();
32
33         }
34
35         PrintCounter(myCounters);
36         //Reset Counter 1
37         myCounters[2].Reset();
38         PrintCounter(myCounters);
39         Console.ReadLine();
40     }
41
42 }
```

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

A screenshot of a macOS-style terminal window titled "Terminal - 2.2P". The window has a title bar with three colored buttons (red, yellow, green) on the left. The terminal content shows a series of output lines: "Counter 1 is 10", "Counter 2 is 15", "Counter 1 is 10", "Counter 1 is 0", "Counter 2 is 15", and "Counter 1 is 0". A small green cursor is visible on the line following the last output.

```
Terminal - 2.2P

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