SWINBURNE UNIVERSITY OF TECHNOLOGY
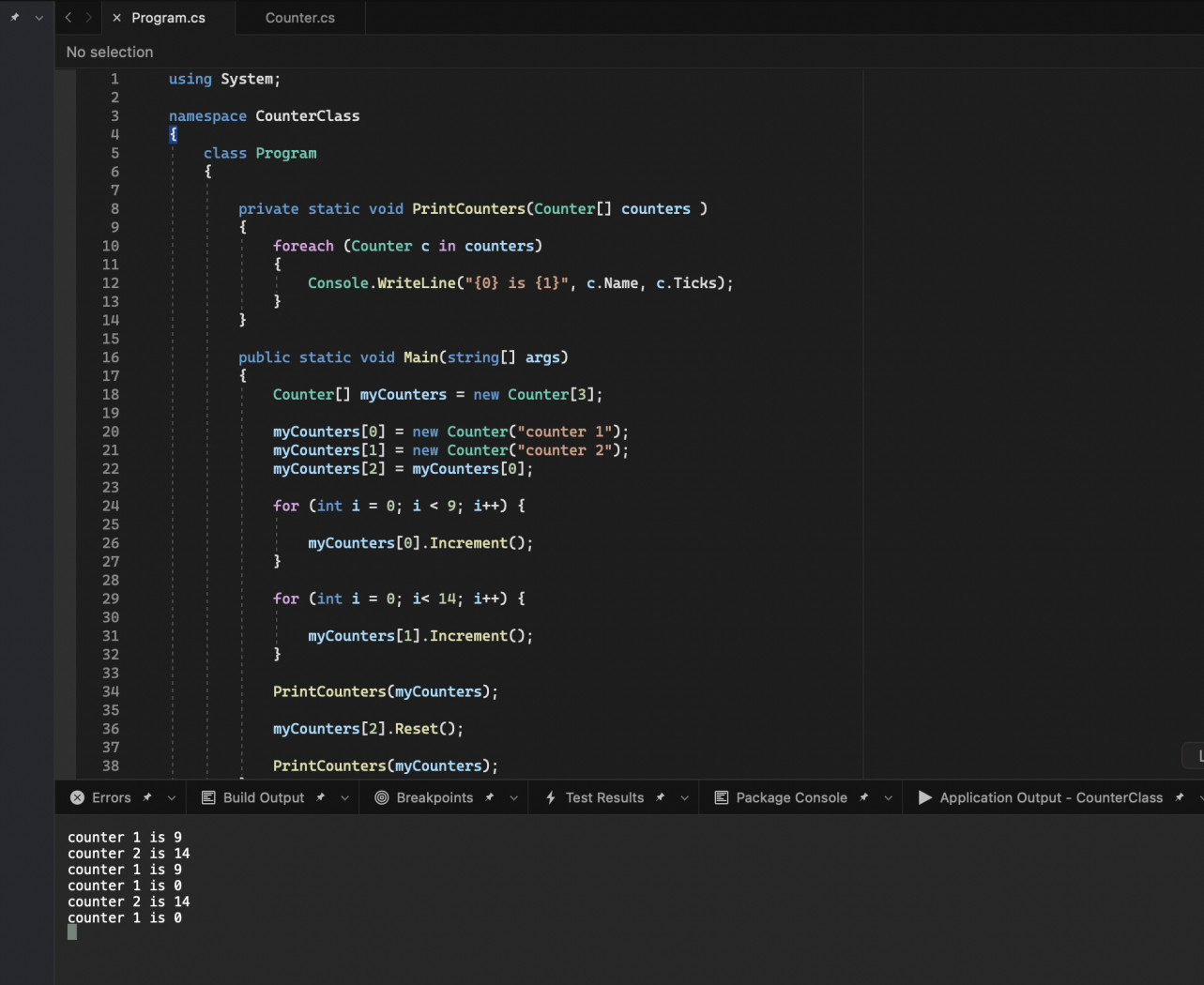
COS20007 OBJECT ORIENTED PROGRAMMING

2.2P - Counter Class

PDF generated at 11:45 on Thursday 9th March, 2023

```csharp
using System;

namespace CounterClass
{
    class Program
    {

        private static void PrintCounters(Counter[] counters )
        {
            foreach (Counter c in counters)
            {
                Console.WriteLine("{0} is {1}", c.Name, c.Ticks);
            }
        }

        public static void Main(string[] args)
        {
            Counter[] myCounters = new Counter[3];

            myCounters[0] = new Counter("counter 1");
            myCounters[1] = new Counter("counter 2");
            myCounters[2] = myCounters[0];

            for (int i = 0; i < 9; i++) {

                myCounters[0].Increment();
            }

            for (int i = 0; i< 14; i++) {

                myCounters[1].Increment();
            }

            PrintCounters(myCounters);

            myCounters[2].Reset();

            PrintCounters(myCounters);
        }

    }
}
```

```csharp
using System;
namespace CounterClass
{
    public class Counter
    {
        private int _count;
        private string _name;

        public string Name
        {
            get { return _name; }
            set { _name = value; }
        }

        public int Ticks
        {
            get { return _count; }
        }

        public Counter(string name)
        {
            _name = name;
            _count = 0;
        }


        public void Increment()
        {
            _count++;
        }

        public void Reset()
        {
            _count = 0;
        }

    }
}
```

```csharp
using System;

namespace CounterClass
{
    class Program
    {

        private static void PrintCounters(Counter[] counters )
        {
            foreach (Counter c in counters)
            {
                Console.WriteLine("{0} is {1}", c.Name, c.Ticks);
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        public static void Main(string[] args)
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            for (int i = 0; i < 9; i++) {

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            for (int i = 0; i< 14; i++) {

                myCounters[1].Increment();
            }

            PrintCounters(myCounters);

            myCounters[2].Reset();

            PrintCounters(myCounters);
```

Errors ★ ∨   Build Output ★ ∨   Breakpoints ★ ∨   Test Results ★ ∨   Package Console ★ ∨   ▶ Application Output - CounterClass ★ ∨

```
counter 1 is 9
counter 2 is 14
counter 1 is 9
counter 1 is 0
counter 2 is 14
counter 1 is 0
```