Selected files

2 printable files

Swinburne/OOP/Week 2/2.2/Program.cs
Swinburne/OOP/Week 2/2.2/Counter.cs

Swinburne/OOP/Week 2/2.2/Program.cs

```
using System;
namespace CounterTask
{
    internal class Program
    {
        private static void PrintCounters(Counter[] counters)
        {
            foreach (Counter c in counters)
            {
                Console.WriteLine($"{c.Name} is {c.Ticks}");
            }
        }

        static void Main(string[] args)
        {
            Counter[] myCounters = new Counter[3];
            myCounters[0] = new Counter("Counter 1");
            myCounters[1] = new Counter("Counter 2");
            myCounters[2] = new Counter("Counter 3");

            for (int i = 1; i <= 9; i++)
            {
                myCounters[0].Increment();
            }

            for (int i = 1; i <= 14; i++)
            {
                myCounters[1].Increment();
            }

            PrintCounters(myCounters);
            myCounters[2].Reset();
            PrintCounters(myCounters);
        }
    }
}
```

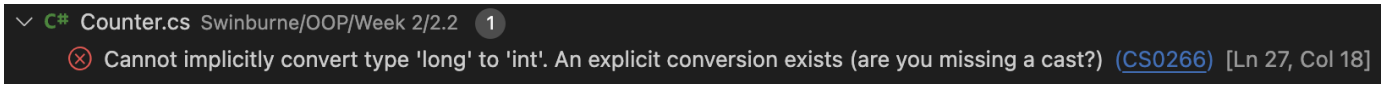
Swinburne/OOP/Week 2/2.2/Counter.cs

```
public class Counter
{
    private int _count;
    private string _name;
```

```
5
6       public Counter(string name)
7       {
8           _name = name;
9           _count = 0;
10      }
11
12      public void Increment()
13      {
14          _count++;
15      }
16
17      public void Reset()
18      {
19          _count = 0;
20      }
21
22      // The value 2147483647794 exceeds the maximum value for an int in C#
    (2147483647)
23      // This will cause an overflow compilation error.
24
25      // public void ResetByDefault()
26      // {
27      //     _count = 2147483647794;
28      // }
29
30      public string Name
31      {
32          get
33          {
34              return _name;
35          }
36
37          set
38          {
39              _name = value;
40          }
41      }
42
43      public int Ticks
44      {
45          get
46          {
47              return _count;
48          }
49      }
50  }
```

Question 13:

The value 2147483647794 exceeds the maximum value for an integer type (int) of _ in C# (2147483647). Hence, attempting to set an int to this value without casting will result in a compilation error.




```
/Users/minhan6559/Library/CloudStorage/OneDrive-MSFT/SourceCode/Swinburne/OOP/Week 2/2.2/Counter.cs(28,26): error CS0266: Cannot
 implicitly convert type 'long' to 'int'. An explicit conversion exists (are you missing a cast?) [/Users/minhan6559/Library/Clo
udStorage/OneDrive-MSFT/SourceCode/Swinburne/OOP/Week 2/2.2/2.2P.csproj]

The build failed. Fix the build errors and run again.
```

Output of the program:

I have to comment the "ResetByDefault" function to fix the error, so that I can build and run the program.

```
(base) minhan6559@MacBook-Air-cua-minhan6559 2.2 % dotnet run
Counter 1 is 9
Counter 2 is 14
Counter 3 is 0
Counter 1 is 9
Counter 2 is 14
Counter 3 is 0
```