Selected files

2 printable files

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

Week 2/2.2/Program.cs

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

Week 2/2.2/Counter.cs

```
 1  public class Counter
 2  {
 3      private int _count;
 4      private string _name;
```

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

    public void Increment()
    {
        _count++;
    }

    public void Reset()
    {
        _count = 0;
    }

    // The value 2147483647794 exceeds the maximum value for an int in C# (2147483647)
    // This will cause an overflow compilation error.

    // public void ResetByDefault()
    // {
    //     _count = 2147483647794;
    // }

    public string Name
    {
        get
        {
            return _name;
        }

        set
        {
            _name = value;
        }
    }

    public int Ticks
    {
        get
        {
            return _count;
        }
    }
}
```

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.

```
∨  C# Counter.cs  Swinburne/OOP/Week 2/2.2   1
     ⊗  Cannot implicitly convert type 'long' to 'int'. An explicit conversion exists (are you missing a cast?)  (CS0266)  [Ln 27, Col 18]
```

```
/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 1 is 9
  Counter 1 is 0
  Counter 2 is 14
  Counter 1 is 0
```