Code Styles

Code styles

```
<hypocrite>
```
"Do as I say…. not as I do".
```
</hypocrite>
```

Comments in c#

// for the reminder of the line

/* ... */ for multiples of lines

What should I comment?

- The head of a class file
  - Name, author, purpose, history

  /* Geograph.cs
  * This class provides a gateway into the lower level GIS objects.
  * It provides a set of methods that support routing operations
  *
  *   Written by Neil Urquhart 11/10/12
  *   getNodes() method added 1/2/13 by RK
  * Bug in getNodes() fixed 3/2/13 by EE
  */

What should I comment?

- Methods
  - Purpose and use of parameters

```
//Area multiples x and y and returns the resulting area
public int area(int x int y)
{
    return x*y;
}
```
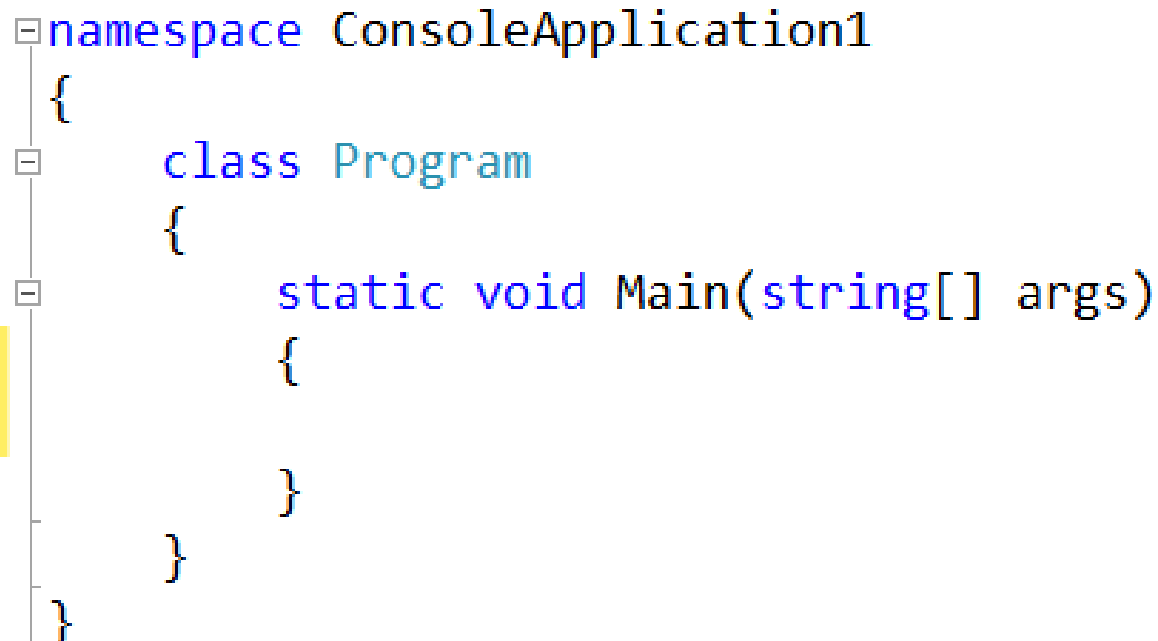
What should I comment?

- Anything else that someone might need to know
- Variables/properties where the purpose is not obvious from the name
- Particularly complex sections of code

- It is better to over comment than under comment

Variable and property names

- Private properties like should be named with an underscore   _student
- Public properties should start with a capital letter   Student
- Methods should also start with a capital letter   Student()
- Local variables and objects   student
- Temporary variables (in loops etc)   s

- The convention used to be that only class names started with a capital letter
  - Microsoft don't encourage/enforce this….
  - Be consistant

General code formatting

- Put each '{' or '}' on a new line
  - Indent (tab) after each {
  - And back a tab before each }
- VS enforces this by default:

```csharp
namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {

        }
    }
}
```

Methods

- Keep methods short
  - Each method should only perform 1 task
- Use Private where a method will never be called from outside that class
- Use method names that explain what that method does
  - This keeps your code readable

Properties

- You can use the Java style get/set
- Or you can use c# style properties
  - The value is held in a private variable
  - The property is visible outside

```csharp
// _name holds the Christian and Surnames
private string _name = "N/A";

// Declare a Name property of type string:
public string Name
{
    get
    {
        return _name;
    }
    set
    {
        _name = value;
    }
}
```

Summary

- Keep code simple
- Keep it commented
- Be consistent in your styles