

Writing your first program

In order to create a working Console application you need to add C# code to the default skeleton project code generated by the Visual Studio IDE:



- 1 On the Menu Bar, click **File, New, Project**, or press the **Ctrl + Shift + N** keys, to open the “New Project” dialog box
- 2 In the “New Project” dialog box, select the **Installed, Visual C#, Console App (.NET Core)** item
- 3 Enter a project name of your choice in the **Name** field – in this case the project name will be “Hello”
- 4 Click on the **OK** button to create the new project and see the **Code Editor** display the default skeleton project code
- 5 Position the cursor at the end of the line that reads `Console.WriteLine("Hello World!");`
- 6 Hit Enter to add a new line, then precisely type this code `Console.WriteLine("Press Any Key To Continue...");`
- 7 Hit **Enter** to add another new line, then type this code `Console.ReadKey();`



As you type the code, a suggestion box will appear. This is the “IntelliSense” feature. You can select an item then insert it into your code by pressing the Tab key or the Spacebar.



The **Main()** method is automatically called whenever a C# program is run – to execute the instructions contained within its { } braces.

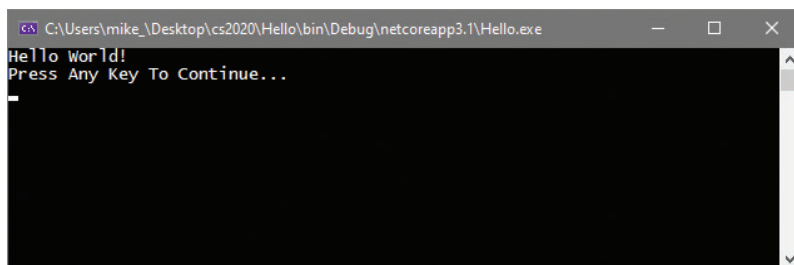
```

1  using System;
2
3  namespace Hello
4  {
5      References
6      class Program
7      {
8          References
9          static void Main(string[] args)
10         {
11             Console.WriteLine("Hello World!");
12             Console.WriteLine("Press Any Key To Continue...");
13             Console.ReadKey();
14         }
15     }

```


...cont'd

- 8 Now, select **File, Save Hello**, or press the **Ctrl + S** keys, to save the completed C# Console application
- 9 Then, select the  **Start** button on the Toolbar, or press the **F5** key, to build and run the application



```
C:\Users\mike\Desktop\cs2020\Hello\bin\Debug\netcoreapp3.1\Hello.exe
Hello world!
Press Any Key To Continue...
```

A Console window like the one shown above should now appear, displaying a traditional programming greeting.

- 10 Hit **Enter**, or click the  **Stop** button, to close the application and see the Console window disappear

Code analysis

Examination of the code helps to understand what is happening:

- **using System** ; This is a directive allowing the **System.Console** class object to be written without the **System.** prefix.
- **namespace Hello { }** This is a declaration that creates a unique namespace wrapper in which to enclose your program.
- **class Program { }** This declaration creates a “Program” class in which to create your own program properties and methods.
- **static void Main(string[] args) { }** This declaration creates a standard **Main()** method in which to write your C# code.
- **Console.WriteLine("Hello World!")** ; This is a statement that calls upon the **WriteLine()** method of the **Console** class to output text enclosed in quote marks within its parentheses.
- **Console.ReadKey()** ; This statement calls upon the **ReadKey()** method of the **Console** class to wait for any key to be pressed.



To edit the default Console window colors and font, right-click its window Titlebar and choose **Properties**. For clarity, all other Console window screenshots in this book feature Lucida Console 14-pixel **Font** in black **Screen Text** on a white **Screen Background**.



Code listed throughout this book is colored to match the default syntax highlight colors of the Visual Studio Code Editor for easy recognition.



Calling the **ReadKey()** method is a little trick to keep the Console window open until you press any key. Without this statement, the application would output its message then immediately exit.