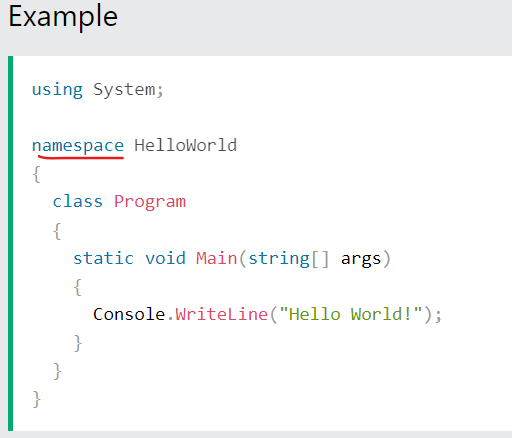
**C#**

* C# (C-Sharp) is a **object-oriented** **programming language** **developed by Microsoft** that **runs on the .NET** Framework.
* C# is used to develop web apps, desktop apps, mobile apps, games and much more.

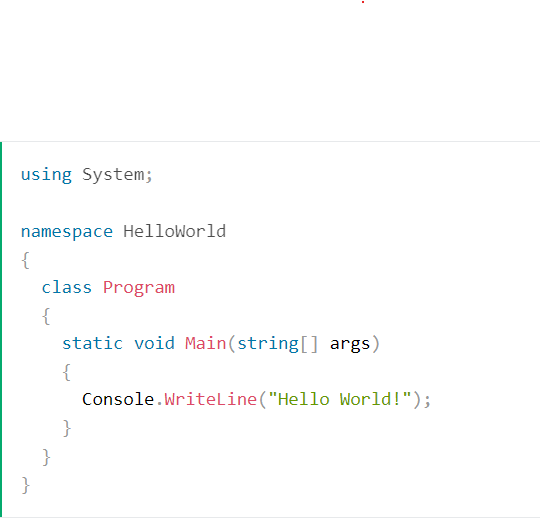


* **INSTALL** :

1. IDE :**Ms Visual Studio**
2. SDK : **.NET**



* **Syntax:**



****Line 1:**** using System means that we can use classes from the System namespace.

****Line 2:**** A blank line. C# ignores white space. However, multiple lines makes the code more readable.

****Line 3:**** namespace is used to organize your code, and it is a container for classes and other namespaces.

****Line 4:**** The curly braces {} marks the beginning and the end of a block of code.

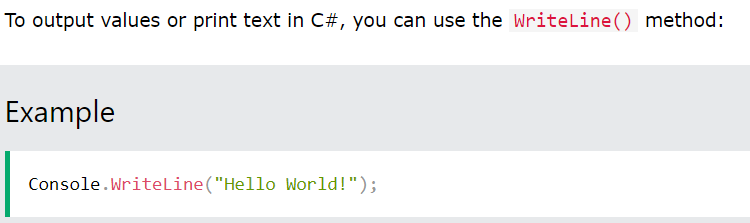
****Line 5:**** class is a container for data and methods, which brings functionality to your program. Every line of code that runs in C# must be inside a class. In our example, we named the class Program.

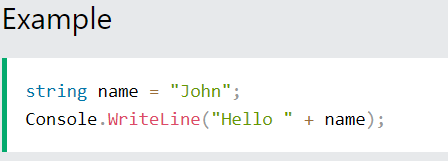
****Line 7:**** Another thing that always appear in a C# program is the Main method. Any code inside its curly brackets {} will be executed. You don't have to understand the keywords before and after Main. You will get to know them bit by bit while reading this tutorial.

****Line 9:**** Console is a class of the System namespace, which has a WriteLine() method that is used to output/print text. In our example, it will output "Hello World!".

* **C# using VS CODE :**

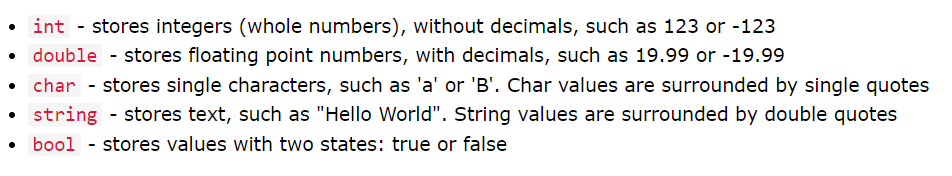
1. Create a folder for your project and open it in VS Code.
2. Then open that in Terminal and type ‘**dotnet new console**’.To create console based App.
3. To run : ‘**dotnet run**’
4. **C# Output** :





* To combine both text and a variable, use the + character.

1. **C# Comments :**
   1. Single Line comment.(**//**)
   2. Multi line comments :(**/\*  \*/**)
2. **C# Variables :**



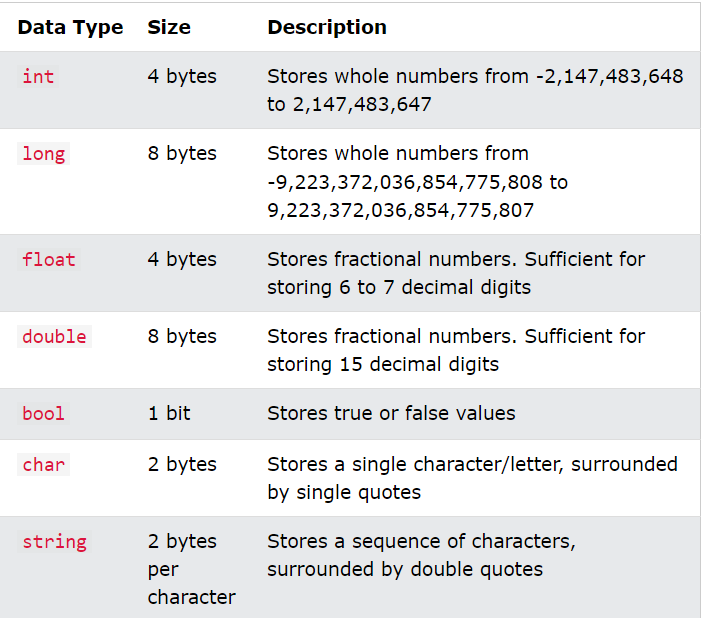
1. **C# constants:**

* If you don’t want others to overwrite the existing value of your variable then use : **const keyword.**
* This will declare the variable as "constant", which means **unchangeable** and **read-only**
* ****Note:**** You cannot declare a constant variable **without assigning** the value.

1. **C# identifiers:**

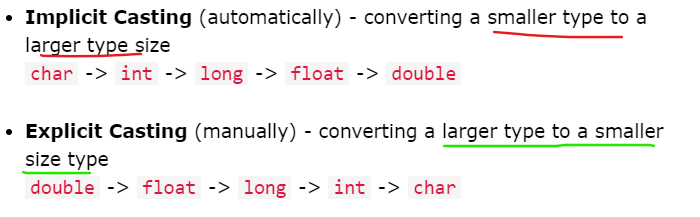
* All C# variables must be **identified with unique names**.These Unique names are called **Identifiers**.
* Rules for identifiers are:

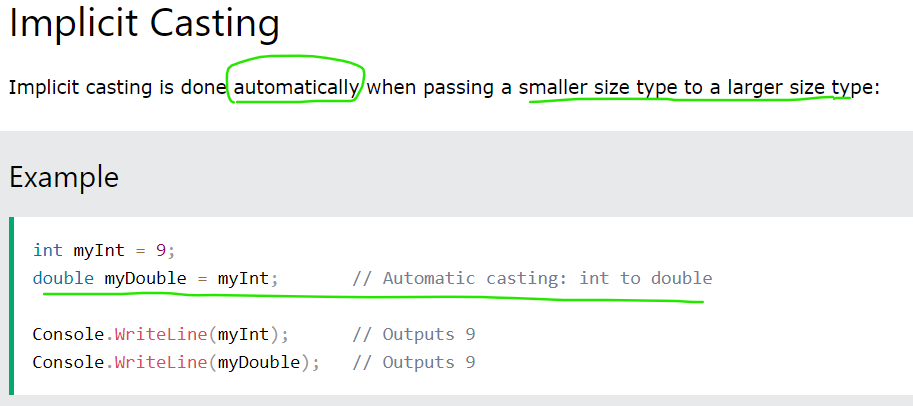
1. Names can contain letters,digits and underscore (\_).
2. Names must begin with a letter or underscore.
3. Names should start with a lowercase letter,and cannot contain whitespace.
4. Names are case-sensitive (“myVar” and “myvar” are different).
5. Reserved words (like int,double,etc…) cannot be used as Names.
6. **C# Data Types :**

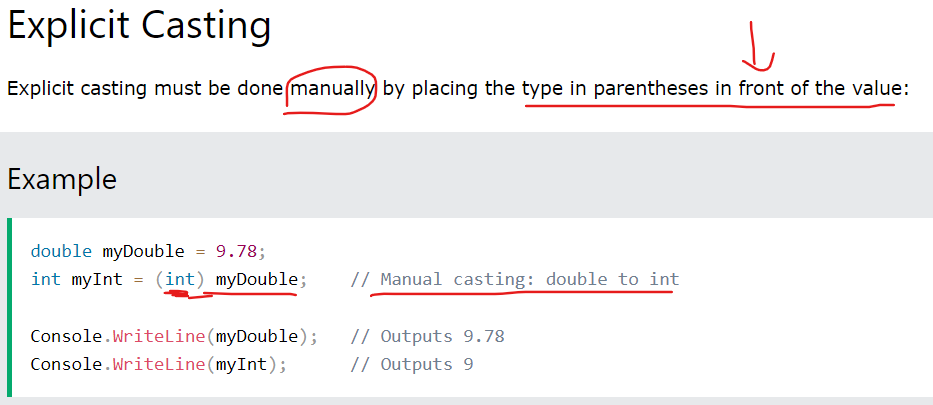


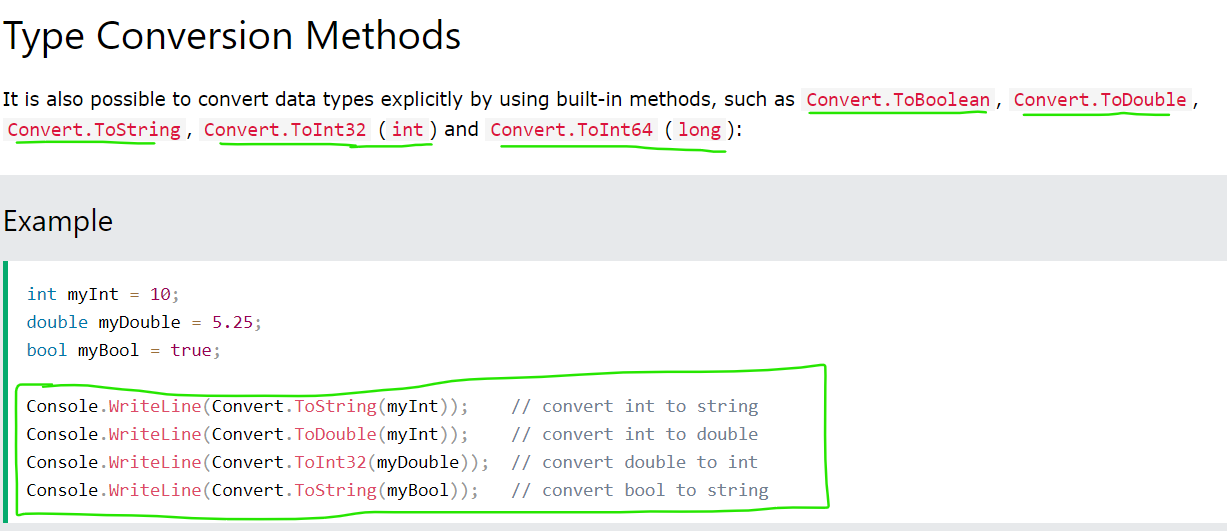
1. **C# Type casting :**

* Type Casting is Assigning a value of one data type to another type.
* Two types:









1. **C# User Input :**
   1. Console.ReadLine()  is used to get user input.
2. **C# op**
3. **C#**
4. **C#**
5. **Asd**
6. **Asd**
7. **Asd**
8. **asd**