C# is an object-oriented programming language that enables developers to build a variety of secure and robust applications that run on .NET

C# is one of the most popular programming languages in the private sector

You can easily switch over to Java or C++

.NET framework: software development framework for building and running applications on windows

* The architecture of .NET framework are the common language runtime (CLR) and .NET framework class library.
  + Common Language Runtime: is the execution engine that handles running applications. It provides services like thread management, garbage collection, type-safety, exception handling, and more.
  + Class library provides a set of API’s and types of common functionality. It provides types for strings, dates, numbers, etc. The class library includes APIs for reading and writing files, connecting to databases, drawing and more.

.NET applications are written in C#, the code is compiled into a language Common Intermediate Language (CIL). The compiled code is then stored in assemblies- files with a .dll or .exe file extension.

When the app runs, the CLR takes the assembly and uses a just in time compiler (JIT) to turn it into machine code that can execute on the specific architecture of the computer it is running on.

SYNTAX

Using System- means that we can use classes from the System namespace.

Namespace- used to organize your code, and it is a container for classes and other namespaces.

Curly braces {} marks the beginning and end of a block of code.

Class- container for data and methods, which brings functionalities to your program. Every line of code that runs in C# must be inside a class.

The Main method- any code inside its curly brackets will be executed

Console- a class of the System namespace, which has a WriteLine() method that is used to output/print text

Every C# statements ends with a semicolon;

C# is case-sensitive