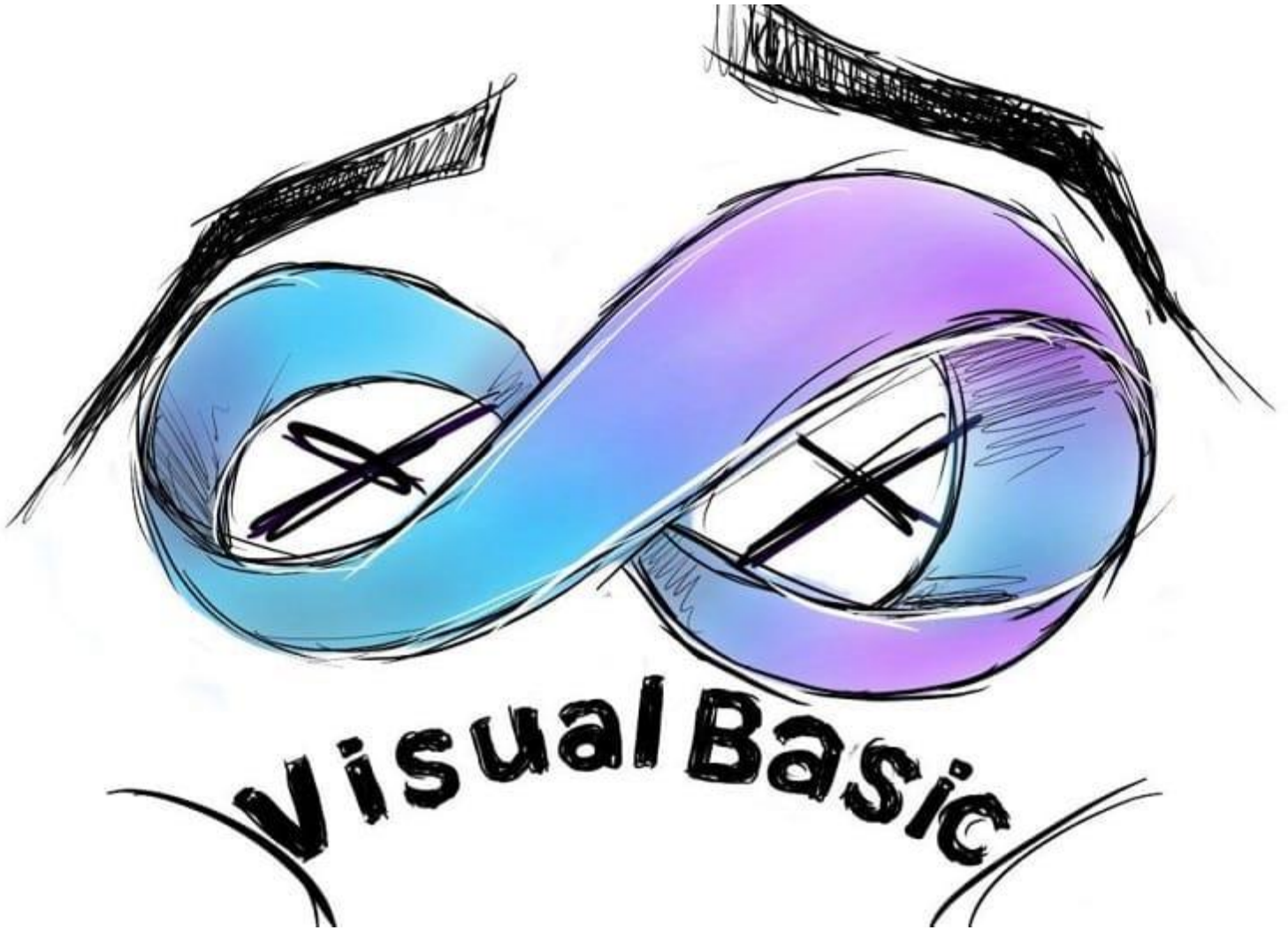


What is VB.Net?



VB.NET stands for Visual Basic.NET, and it is a computer programming language developed by Microsoft. It was first released in 2002 to replace Visual Basic 6. VB.NET is an object-oriented programming language. This means that it supports the features of object-oriented programming which include encapsulation, polymorphism, abstraction, and inheritance.

Visual Basic .ASP NET runs on the .NET framework, which means that it has full access to the .NET libraries. It is a very productive tool for rapid creation of a wide range of Web, Windows, Office, and Mobile applications that have been built on the .NET framework.

The language was designed in such a way that it is easy to understand to both novice and advanced programmers. Since VB.NET relies on the .NET framework, programs written in the language run with much reliability and scalability. With VB.NET, you can create applications that are fully object-oriented, similar to the ones created in other languages like C++, Java, or C#. Programs written in VB.NET can also interoperate well with programs written in Visual C++, Visual C#, and Visual J#. VB.NET treats everything as an object.

It is true that VB.NET is an evolved version of Visual Basic 6, but it's not compatible with it. If you write your code in Visual Basic 6, you cannot compile it under VB.NET.

History of VB.NET

- VB.NET is a multi-paradigm programming language developed by Microsoft on the .NET framework. It was launched in 2002 as a successor to the Visual Basic language. This was the first version of VB.NET (VB.NET 7.0) and it relied on .NET version 1.0.
- In 2003, the second version of VB.NET, VB.NET 7.1, was released. This one relied on .NET version 1.1. This version came with a number of improvements including support for .NET Compact Framework and an improved reliability and performance of the .NET IDE. VB.NET 2003 was also made available in the academic edition of Visual Studio.NET and distributed to various scholars from different countries for free.
- In 2005, VB.NET 8.0 was released. The .NET core portion was dropped from its name so as to distinguish it from the classical Visual Basic language. This version was named Visual Basic 2005. This version came with many features since Microsoft wanted this language to be used for rapid application developers. They also wanted to make it different from C# language. Some of the features introduced by this version of VB.NET included partial classes, generics, nullable types, operator overloading, and unsigned integer support. This version also saw the introduction of the IsNot operator.
- In 2008, VB 9.0 was introduced. This was released together with .NET 3.5. Some of the features added to this release of VB.NET included anonymous types, true conditional operator, LINQ support, XML literals, Lambda expressions, extension methods, and type inference.
- In 2010, Microsoft released VB 2010 (code 10.0). They wanted to use a Dynamic Language Runtime for this release, but they opted for co-evolution strategy shared between VB.NET and C# to bring these languages closer to each other.
- In 2012, VB 2012 (code 11.0) was release together with .NET 4.5. Its features included call hierarchy, iterators, caller data, asynchronous programming with "await" and "async" statements and the "Global" keyword in the "namespace" statements.
- In 2015, VB 2015 (code 14.0) was released alongside Visual Studio 2015. The "?." operator was introduced to do inline null checks. A string interpolation feature was also introduced to help in formatting strings inline.
- In 2017, VB 2017 (code 15.0) was introduced alongside Visual Studio 2017. A better way of organizing source code in just a single action was introduced.

VB.NET Features

VB.NET comes loaded with numerous features that have made it a popular programming language amongst programmers worldwide. These features include the following:

- VB.NET is not case sensitive like other languages such as C++ and Java.
- It is an object-oriented programming language. It treats everything as an object.
- Automatic code formatting, XML designer, improved object browser etc.
- Garbage collection is automated.
- Support for Boolean conditions for decision making.
- Simple multithreading, allowing your apps to deal with multiple tasks simultaneously.
- Simple generics.
- A standard library.
- Events management.

- References. You should reference an external object that is to be used in a VB.NET application.
- Attributes, which are tags for providing additional information regarding elements that have been defined within a program.
- Windows Forms- you can inherit your form from an already existing form.

Advantages of VB.NET

The following are the pros/benefits you will enjoy for coding in VB.NET:

- Your code will be formatted automatically.
- You will use object-oriented constructs to create an enterprise-class code.
- You can create web applications with modern features like performance counters, event logs, and file system.
- You can create your web forms with much ease through the visual forms designer. You will also enjoy drag and drop capability to replace any elements that you may need.
- You can connect your applications to other applications created in languages that run on the .NET framework.
- You will enjoy features like docking, automatic control anchoring, and in-place menu editor all good for developing web applications.

Disadvantages of VB.NET

Below are some of the drawbacks/cons associated with VB.NET:

- VB.NET cannot handle pointers directly. This is a significant disadvantage since pointers are much necessary for programming. Any additional coding will lead to many CPU cycles, requiring more processing time. Your application will become slow.
- VB.NET is easy to learn. This has led to a large talent pool. Hence, it may be challenging to secure a job as a VB.NET programmer.

Summary:

- VB.NET was developed by Microsoft.
- It is an object-oriented language.
- The language is not case sensitive.
- VB.NET programs run on the .NET framework.
- In VB.NET, the garbage collection process has been automated.
- The language provides windows forms from which you can inherit your own forms.
- VB.NET allows you to enjoy the drag and drop feature when creating a user interface.