

# VB.NET - ENVIRONMENT SETUP

In this chapter, we will discuss the tools available for creating VB.Net applications.

We have already mentioned that VB.Net is part of .Net framework and used for writing .Net applications. Therefore before discussing the available tools for running a VB.Net program, let us understand how VB.Net relates to the .Net framework.

## The .Net Framework

The .Net framework is a revolutionary platform that helps you to write the following types of applications:

- Windows applications
- Web applications
- Web services

The .Net framework applications are multi-platform applications. The framework has been designed in such a way that it can be used from any of the following languages: Visual Basic, C#, C++, Jscript, and COBOL, etc.

All these languages can access the framework as well as communicate with each other.

The .Net framework consists of an enormous library of codes used by the client languages like VB.Net. These languages use object-oriented methodology.

Following are some of the components of the .Net framework:

- Common Language Runtime *CLR*
- The .Net Framework Class Library
- Common Language Specification
- Common Type System
- Metadata and Assemblies
- Windows Forms
- ASP.Net and ASP.Net AJAX
- ADO.Net
- Windows Workflow Foundation *WF*
- Windows Presentation Foundation
- Windows Communication Foundation *WCF*
- LINQ

For the jobs each of these components perform, please see [ASP.Net - Introduction](#), and for details of each component, please consult Microsoft's documentation.

## Integrated Development Environment *IDE* For VB.Net

Microsoft provides the following development tools for VB.Net programming:

- Visual Studio 2010 VS
- Visual Basic 2010 Express VBE

- Visual Web Developer

The last two are free. Using these tools, you can write all kinds of VB.Net programs from simple command-line applications to more complex applications. Visual Basic Express and Visual Web Developer Express edition are trimmed down versions of Visual Studio and has the same look and feel. They retain most features of Visual Studio. In this tutorial, we have used Visual Basic 2010 Express and Visual Web Developer *for the web programming chapter*.

You can download it from [here](#). It gets automatically installed in your machine. Please note that you need an active internet connection for installing the express edition.

## Writing VB.Net Programs on Linux or Mac OS

Although the .NET Framework runs on the Windows operating system, there are some alternative versions that work on other operating systems. Mono is an open-source version of the .NET Framework which includes a Visual Basic compiler and runs on several operating systems, including various flavors of Linux and Mac OS. The most recent version is VB 2012.

The stated purpose of Mono is not only to be able to run Microsoft .NET applications cross-platform, but also to bring better development tools to Linux developers. Mono can be run on many ~~operating systems including Android, BSD, iOS, Linux, OS X, Windows, Solaris and UNIX.~~

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