# Advantages of ASP.NET

1. **Separation of Code from HTML**

To make a clean sweep, with ASP.NET you have the ability to completely separate layout and business logic. This makes it much easier for teams of programmers and designers to collaborate efficiently. This makes it much easier for teams of programmers and designers to collaborate efficiently.

1. **Support for compiled languages**

developer can use C# and access features such as strong typing and object-oriented programming. Using compiled languages also means that ASP.NET pages do not suffer the performance penalties associated with interpreted code. ASP.NET pages are precompiled to byte-code and Just In Time (JIT) compiled when first requested. Subsequent requests are directed to the fully compiled code, which is cached until the source changes.

1. **Use services provided by the .NET Framework**

The .NET Framework provides class libraries that can be used by your application. Some of the key classes help you with input/output, access to operating system services, data access, or even debugging. We will go into more detail on some of them in this module.

1. **Graphical Development Environment**

Visual Studio .NET provides a very rich development environment for Web  
developers. You can drag and drop controls and set properties the way you do in Visual Basic 6. And you have full IntelliSense support, not only for your code, but also for HTML and XML.

1. **State management**

To refer to the problems mentioned before, ASP.NET provides solutions for session and application state management. State information can, for example, be kept in memory or stored in a database. It can be shared across Web farms, and state information can be recovered, even if the server fails or the connection breaks down.

1. **Update files while the server is running!**

Components of your application can be updated while the server is online and clients are connected. The Framework will use the new files as soon as they are copied to the application. Removed or old files that are still in use are kept in memory until the clients have finished.

1. **XML-Based Configuration Files**

Configuration settings in ASP.NET are stored in XML files that you can easily read and edit. You can also easily copy these to another server, along with the other files that comprise your application.

**Definitions You Need To Understand**

* IIS: It is the default web server with Microsoft .NET. Internet Information Server helps to deploy web sites/web application. IIS web server receives requests for a web resource (file), it checks the extension of the file (e.g. .aspx, .ascx, .ashx and .asmx) and then it determines which ISAPI extension should handle this request and passes this request to proper ISAPI extension.
* ASPNET\_ISAPI.DLL: IIS loads this DLL and sends the page request to this DLL. This DLL loads the HTTP Runtime for further processing.
* ASPNET\_WP.EXE: It contains an Application Pool. Each Application Pool can contain any number of Applications. Application Pool is also called as AppDomain. When a web page is requested, IIS looks for the application pool under which the current application is running and forwards the request to the respective worker process.