

Microsoft. NET

Microsoft introduced .NET technology to provide :

- Support for previous versions of ASP
 - Ease of integration between ASP.NET and ASP
- A simpler programming model
 - No need to keep binary compatibility between different versions of components
 - "DLL Hell"
 - Assemblies are not registered

Technologies of the Microsoft .Net Framework

- Common Language Runtime Engine
 - Microsoft Intermediate Language (MSIL)
 - JIT (Just-In-Time) Compilation
 - Unlike Java Virtual Machine, which interprets code at runtime, MS.NET runtime compiles in machine native code, which provides better performance
- Platform independence
 - Source code is not compiled to binaries for a particular platform

Technologies of the Microsoft .Net Framework Cont'

- Language independence
 - C#, Visual Basic, Jscript, C++
- ASP.NET Web forms (pages)
 - Server side scripts
 - Client side controls like Standard HTML and Java Script

Technologies of the Microsoft .Net Framework Cont'

- ASP.NET Controls
 - Automatic Browser type detection
 - Provide a layer of abstraction to HTML
- ViewState Management
 - Http is a stateless protocol
 - *Maintaining state Automatically*
 - In ASP.NET, Unlike ASP, all controls remember their state by default
 - ASP.NET doesn't use cookies

Technologies of the Microsoft .Net Framework Cont'

- Validation Controls
 - MS.NET provides built-in validation controls without client-side code

ASP.NET Web Forms

- Web forms contain blocks of code that are processed on the server
- Generate HTML
- The entire page is compiled on the server.
 - This reduces the server response time
 - The compiler can find potential errors that might be overlooked until runtime in interpreted languages

ASP.NET List Controls

Provide an easy way to create HTML that contain the contents of a data source

- In ASP, we have to use loops walk through the data

ASP.NET Controls Cont'

- Data Source can be
 - ArrayList, Hashtable, SqlDataReader, ...
 - DataView is a recordset for storing large amounts of data (XML)
- List controls:
 - Repeater: used to display items in a list
 - DataList: a template-driven list control
 - DataGrid: a table-driven list control

Validation Controls

- RequiredField Validator
- Range Validator
- Compare Validator
- RegExp Validator
- Custom Validator
- ValidationSummary

Benefits of MS.NET Framework

- Fewer lines of code
- Complete compilation
 - ASP is interpreted
- Output, Data and Fragment Caching