

This three-day course provides a practical introduction to developing rich Internet applications using ASP.NET AJAX and C#. Because of the rich support provided by Microsoft's AJAX tools, an ASP.NET programmer can get up and running in this new environment quickly. This course shows the way. It is current to ASP.NET 4.0 and Visual Studio 2010. The course includes an introduction to the popular JavaScript library jQuery, which is now bundled with ASP.NET AJAX.

**Audience:** ASP.NET developers who wish to become productive in ASP.NET AJAX.

**Prerequisites:** A good working knowledge of Web application development using ASP.NET, Visual Studio and C#. The student should have a basic knowledge of HTML. Exposure to JavaScript would be helpful but not required. A basic knowledge of ADO.NET would be helpful for understanding the case study and some of the examples.

**Number of Days:** 3 days

**1. Rich Internet Applications and AJAX**

- Desktop Applications
- Web Applications
- Plug-Ins
- Client-Side Scripting
- JavaScript Example
- Script Code
- JavaScript in ASP.NET
- Dynamic Pages
- Efficient Page Redraws
- AJAX
- Google Maps
- ASP.NET AJAX
- ASP.NET Enhancements
- ASP.NET AJAX Control Toolkit
- An ASP.NET AJAX-Enabled Website

**2. Using JavaScript**

- History and Standards
- Uses of JavaScript
- JavaScript in the Browser
- Embedded JavaScript
- .js Files
- JavaScript Language
- Variables
- Variables Example
- Reserved Words
- Types
- Strings
- Numbers

**3. DHTML, DOM and CSS**

- Boolean
- Operators in JavaScript
- Logical Operators
- Bitwise and Assignment Operators
- Functions
- Scope
- Output from Scope Example
- Arrays
- Loops
- for/in Loops in Arrays
- Selection Structures
- Exceptions
- Error Object
- Objects in JavaScript
- Creating Your Own Objects
- Using Your Objects
- Dynamically Adding a Method
- for/in Loops with Objects
- What is DHTML ?
- DHTML Components
- XHTML
- Document Object Model
- Browser Objects
- Accessing DOM Nodes
- Using jQuery
- Manipulating Elements: Properties
- Creating and Inserting Nodes
- CSS (Cascading Style Sheets)

- CSS Syntax
- Style Sheets
- Output without the Style Sheet
- Output with the Style Sheet
- StyleSheet1.css
- Output with a Different Style Sheet
- StyleSheet2.css
- CSS Class Example
- Using a CSS Class
- jQuery Library
- jQuery and Visual Studio
- Selectors
- jQuery Wrapper
- CSS Manipulation
- Adding and Removing Class Name
- More about Selectors
- Animation
- Animation Effects
- Modifying the Document Structure
- Remove and Append Code
- Microsoft Content Delivery Network
- 4. Microsoft AJAX Client Library**
- Microsoft AJAX Components
- AJAX Client Library
- Using the Client Library
- ScriptManager Control
- Client Library Namespaces
- Sys.Debug Tracing
- AJAX Client Life Cycle Events
- Enable Script Debugging
- TraceConsole
- Extending JavaScript Objects
- Test Program for Array Extension
- Test Program Code
- Array Extensions in Client Library
- Object-Oriented JavaScript
- Class
- Person Class
- Account Class
- Test Code
- Namespaces
- Inheritance
- User Interface
- Top-Level Function
- Shortcut Methods
- Populating a List Box
- JavaScript in Assemblies
- Providing a ScriptReference
- Enhanced AcmeClass Application
- 5. Partial Page Rendering**
- Partial Page Rendering
- UpdatePanel Control
- AJAX Extensions Controls
- Controlling Updates
- Triggers
- Types of Triggers
- Server Initiated Updates
- A Challenge
- Triggers Again
- Timer Control
- PageRequestManager Class
- Customization Scenarios
- PageRequestManager Event Handlers
- UpdateProgress Control
- Factors Code
- Canceling the Async Postback
- Limitations and Performance Issues
- 6. Remote Method Calls**
- Why Remote Methods
- Designing Remote Methods
- A Web Service in an .asmx File
- Registering AJAX Web Services
- Calling AJAX Web Services
- Running the Application
- Handling Errors
- Context
- Modified Web Service
- Using Context
- Method Parameter
- Using Method Parameter
- Page Methods
- JavaScript Object Notation
- JSON Data Types
- Comparing JSON and SOAP
- SOAP Serialization
- ScriptMethod Attribute
- 7. AJAX Control Toolkit**
- AJAX Control Toolkit
- Install ACT in Visual Studio
- ACT Controls in Visual Studio
- Hello ACT
- Intellisense for Properties
- AjaxControlToolkit.dll
- Registering AjaxControlToolkit.dll

- Extender Controls
- NumericUpDownExtender Control
- Rating Control
- Using a Style Sheet
- MaskedEdit Control
- PasswordStrength Control
- Page Layout Controls
- Tab Controls
- Accordion Control
- CollapsiblePanel Control
- CollapsiblePanel Markup
- Popup Controls
- Modal Popup Visual Effects
- ACT Controls and Web Services
- DynamicPopulate

**8. Application Services**

- Using ASP.NET Application Services
- Forms Authentication
- Authorization
- Built-in Authentication Service
- ASP.NET Configuration Tool
- Login Page
- Members Page
- Configuration Files
- JavaScript on Login Page
- JavaScript on Home Page
- Profile Properties
- Using ASP.NET Profile Properties
- Using Client-Side Profile Service
- Profile JavaScript Code
- Storing Profile Information