

Technical Training Solutions



ASP .NET AJAX BOOT CAMP (USING C# .NET) (3 Day Course)

Technical
Course
Outline

COURSE SUMMARY

AJAX (“Asynchronous JavaScript API for XML”) is an exciting web application technology that, along with a rich set of development tools, is becoming an indispensable element for providing rich web client applications.

This course provides hands-on experience working with Microsoft’s ASP.NET AJAX Script Library, Extensions, & Toolkit. Students will learn about the fundamental technologies required to build custom AJAX applications, how to debug AJAX application code, how to use various ASP.NET AJAX controls & scripts, how to incorporate AJAX into Web Services and much more. If you’re serious about learning how to AJAX-enable ASP.NET Websites, this class will provide the skills you need!

INTENDED AUDIENCE:

AJAX relies heavily upon client-side scripting and an understanding of the request/response nature of the web. As a consequence of this, this course is geared towards *current web developers who have a solid understanding of client-side web development technologies such as: HTML, XHTML, JavaScript and CSS as well as ASP .NET and C# .NET programming experience using Visual Studio.*

PREREQUISITES:

To ensure the best learning experience for all participants, the following pre-requisites *must be met* in order to participate in this course:

- Successful completion of *or* proficiency with the topics from:
 - **Advanced XHTML, HTML & CSS**
 - **Introduction JavaScript**
 - **“C# .NET Fundamentals”**
 - **“ASP .NET Fundamentals”**

COURSE CONTENTS:

- **Life Before AJAX (Overview/Demonstration/Discussion)**
 - HTTPRequest/HTTPResponse & HTML
 - JavaScript & ECMAScript
 - The W3C Document Object Model (DOM) Standard
 - CSS & DHTML
 - XHTML
- **Understanding AJAX Technologies & Architectures**
 - The XmlHttpRequest Control
 - Microsoft AJAX Script Library
 - Cross-Browser Issues
 - ASP .NET AJAX Extensions
 - ASP .NET AJAX Control Toolkit
 - ASP .NET AJAX Control Extenders
 - JavaScript in Assemblies
 - Providing a ScriptReference
 - Embedded JavaScript Files
- **The ASP.NET AJAX Script Library**
 - What Is The AJAX Library?
 - The AJAX Library Namespaces
 - Implementing Global Shortcut Functions
 - Canceling Duplicate Asynchronous Requests
 - Aborting In-Process Asynchronous Requests
 - Writing Custom AJAX Scripts
- **Microsoft’s ASP.NET AJAX Extensions**
 - Microsoft’s Core vs. Extended AJAX Technologies
 - AJAX Assemblies Installed In The GAC
 - Managing AJAX Scripts With The ScriptManager
 - Partial Page Rendering
 - The UpdatePanel Control
 - Properties & Methods
 - UpdatePanel Request Stages
 - Initializing, Loading, Completing
 - Using Triggers
 - The PageRequestManager Class
 - Partial-Page Update Notifications With UpdateProgress
 - Implementing Timers To Automatically Refresh Data
- **Debugging ASP.NET AJAX Applications**
 - Understanding Different Debugging Tools
 - Debugging Inline & External Scripts
 - Viewing Request & Response Messages Using Fiddler
 - Working With The Sys.Debug Client-Side Class
- **The ASP.NET AJAX Control Toolkit (ACT)**
 - Installing & Configuring The ASP.NET AJAX Control Toolkit
 - AjaxControlToolkit.dll
 - Perform Advanced AJAX Functionality Using Toolkit Controls
 - Controls vs. Control Extenders
 - The TabBrowser Control
 - The Accordion Control
 - The CollapsePanel Control
 - The ModalPopup Extender Control
 - The CascadingDropDown Control Extender
 - The UpdateProgress Control
 - The MaskedEdit Control
 - The History Control
 - The Calendar Control
- **Calling Web Services Using ASP.NET AJAX**
 - Web Service Architecture & Key Technologies
 - Creating ASP.NET Web Services
 - Applying AJAX Web Service Attributes To Web Services
 - ScriptMethod Attribute
 - JavaScript Web Service Proxy Objects Using ScriptManager
 - Calling Web Services Using Proxies
 - Creating & Calling Page Methods
 - JavaScript Object Notation
 - Comparing JSON and SOAP
 - JSON Data Types
 - JSON Request/Response Messages
- **Use ASP.NET AJAX Application Services**
 - The AuthenticationService & ProfileService Client-Side Classes
 - Login Users Using AJAX & The ASP.NET Membership Provider
 - Log Users Out Of A System From The Client-Side
 - Access & Modify User Profiles From The Browser