Course Outline | ASP.Net Ajax Fundamentals

3 day(s)

Overview

The ASP.NET Ajax Library is an open source, JavaScript library that enables data-driven Ajax application development that execute entirely in the browser. This new Web development from Microsoft provides both client-side and server-side components for closing the gap between web and desktop user interfaces. The accompanying Microsoft Ajax Libraries include a browser-neutral client script library that is easily integrated with existing Web applications (including ASP.NET and non-.NET sites), improving response times and enhancing UIs with DHTML and JavaScript features that in the past would have taken enormous development efforts and extensive client-side knowledge.

ASP.NET and newer applications can take advantage of the Ajax Extensions server-side features to further enhance their UIs, often through simple mark-up. This ASP.NET Ajax Fundamentals course walks you through the components of ASP.NET Ajax, asks you to build a number of Ajax-enabled ASP.NET applications, and shows how best to leverage the capabilities of the extensions to make your clients' experience a richer one.

Prerequisites

ASP.NET Ajax Fundamentals course is designed for developers with ASP.NET experience interested in taking their Web applications to the next level with the ASP.NET Ajax. Improve response times, eliminate tedious post-backs, and enhance your UI with sophisticated DHTML behaviours using an intuitive framework.

Course Outline

Introducing ASP.NET Ajax

- What is Ajax?
- Raw Ajax development
- A tour of ASP.NET Ajax extensions
- UpdatePanel
- Web services support
- Client-side JavaScript library
- Control toolkit

ASP.NET Ajax Server Controls

- Ajax the easy way --- using server-side controls
- Client-side vs. server-side
- Synchronous vs. asynchronous
- Partial page rendering
- UpdatePanel
- UpdateProgress
- TimerControl
- Error handling

ASP.NET Ajax Server Data

- Using Ajax to access data on the server
- Exposing web services to the client
- WCF endpoints
- Static page methods
- Proxy generation
- JSON serialization
- Error handling
- Profile service
- Membership service

Debugging

- Tools and techniques for debugging Ajax applications

Systematix

- JavaScript debugging
- DOM debugging
- Tracing
- Interception
- Tools, tools, tools

JavaScript on the Client

- A primer on the JavaScript programming language
- A little history
- Summary of JavaScript the language
- Common syntax
- Common semantics
- DOM programming
- OO programming

ASP.NET Ajax Client-side Library

- Taking advantage of Ajax on the client
- Components of the Ajax extensions client-side library
- Components of the Ajax Extensions
- Preview library
- Event handling
- JSON serialization
- XMLHttpRequests
- Declaring classes
- Inheritance and interfaces
- Managing the libraries
- Script loader
- Using Microsoft CDN

DataView and client data binding

- Client data sources
- Declarative control instantiation
- Live data binding
- Observer pattern
- AdoNetServiceProxy
- DataContext

jQuery

- The 'do more write less' library
- Motivation
- Developing with jQuery
- The '$' function
- Selectors
- Events
- Chaining
- Effects
- DOM manipulation
- Ajax
- plug-ins
- Integration with ASP.NET Ajax