ASP.NET Web Forms Programming for Experienced C# Programmers

Duration: 3 Days *(Face-to-Face & Remote-Live)*, or 21 Hours *(On-Demand)*

Price: $1695 *(Face-to-Face & Remote-Live)*, or $895 *(On-Demand)*

Discounts: We offer multiple discount options. Click here for more information.

Delivery Options: Attend face-to-face in the classroom, remote-live or via on-demand training.

Description

This course provides students with hands on experience using Visual Studio to create dynamic ASP.NET Web Forms applications using C#.

Students will learn to use the power of ASP.NET web server controls combined with HTML5 to design web pages. They will use ASP.NET validation controls to provide both client-side and server-side data validation for user input. Students will learn how to use master pages to enforce a consistent look and feel across a set of web pages, as well as how to use user controls to reuse smaller pieces of HTML across multiple pages.

The course explores the complexities of state management in ASP.NET Web Forms and how to use session and view state objects to manage state between HTTP requests.

Students spend time exploring how to use ADO.NET to interact with databases by running SQL queries and executing stored procedures. They will also learn how to read/write XML files using DataSets and DataTables. Students learn how to use ASP.NET Web Forms data binding to easily display data in list controls, the GridView control and the DetailsView control.

Microsoft provides support for Ajax-enabled Web Forms applications using the ASP.NET AJAX Framework. Students will learn how to use some of the server-side features to make asynchronous postbacks from the browser, perform partial page updates using the UpdatePanel, use CSS to dim a page during postback and use the Timer to fetch data from the server asynchronously.

Other topics include: using a Web.config file to control application configuration; working with the query string; working with cookies; reading and writing files; and deploying ASP.NET web applications. Comprehensive labs provide the students with extensive experience creating and deploying dynamic ASP.NET Web Form applications.

Prerequisites

Knowledge of fundamental HTML syntax is helpful, but not required. Prior experience with C# is required.

Course Overview

Overview of ASP.NET Web Forms

- ASP.NET Technologies
- Web Forms vs. MVC
- Understanding the HTTP Request and Response Cycle
- Client-Side vs. Server-Side Code Execution
- Exploring an ASP.NET Web Form
- Understanding the Life-Cycle of an ASP.NET Page Object

Creating ASP.NET Web Forms Applications

- Building ASP.NET Web Forms Applications Using Visual Studio
- Understanding a Web Form Application Project Structure
- Designing Web Forms
- Incorporating CSS into the Web Application
- Understanding the Page Directive
- Working with the Code-Behind Model
- Understanding `Web.config`
- Transformational Config Files

Using ASP.NET Server Controls

- Working with Web Server Controls
- Using Hyperlinks and Button-Based Controls
- Using Label and Textbox Controls
- Using List Controls
- Using the Image Control
- Exploring Other Web Server Controls

Handling Events

- Working with Page-Based Event Handlers
- Writing Control Event Handlers
- Sharing Event Handlers
- Understanding PostBack vs. Non-PostBack Events
- Handling Application-Based Events in `Global.asax`

Using ASP.NET Validation Controls

- Understanding ASP.NET Validation Controls
- Performing Client-Side Validation
- Performing Server-Side Validation
- Using the Required Field Validator
- Using the Comparison and Range Validators
- Using the Regular Expression Validator
- Customizing Validation
- Working with Validation Groups
- Unobtrusive Validation

Reusing Design: User Controls and Master Pages

- Reusing HTML Snippets with User Controls
- Designing a User Control
- Embedding a User Control on a Page
- Understanding the Master Page Architecture
- Designing a Master Page
- Designing Content Pages

- Using the NuGet Package Manager to Download `AspNet.ScriptManager.jQuery`

Maintaining State

- Maintaining State within ASP.NET Web Forms Applications
- Using the `Session` Object
- Using the `ViewState` Object
- Reading and Writing Cookies
- Using the Query String

ADO.NET

- Understanding the ADO.NET Object Model
- Connected vs. Disconnected Access
- Using a Connection to Connect to a Data Source
- Using a Command to Execute Queries and Stored Procedures
- Using a DataReader to Work with Cursors
- Using a DataSet with Disconnected Data
- Using DataAdapters with DataSets

Using XML

- Introducing XML and XML Schemas
- Writing XML Schemas with a DataSet
- Reading XML Schemas with a DataSet
- Writing XML Data with a DataSet
- Reading XML Data with a DataSet

Using Data Binding

- Understanding ASP.NET Data Source Controls
- Configuring Data Sources
- Examining ASP.NET Data Bound Controls
- Using List Controls
- Using the `GridView` Control
- Using the `DetailsView` Control
- Exploring Other Data Bound Controls

Introduction to ASP.NET AJAX

- Understanding Ajax
- Enabling ASP.NET AJAX with the ScriptManager
- Configuring Partial Page Updates with the UpdatePanel
- Displaying a Progress Indicator Using UpdateProgress
- Making Periodic Postbacks Using the Timer
- Using the NuGet Package Manager to Download jQuery

Deploying ASP.NET Applications

- Configuring IIS for Deployment
- Configuring an ASP.NET Web Form Application for Deployment
- Using Publish to Deploy a ASP.NET Web Application

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