

Course 453: Web Site Programming Using ASP.NET (Browser Intensive)

Course Description...

This is an introductory level course in ASP.NET programming that focuses on browser – server interactions. The course describes the mechanisms used by ASP.NET to transform web programming into an object oriented, event driven paradigm. HTML and Web Form controls and the hidden VIEWSTATE control are explored and used in numerous hands-on exercises. Page events and properties are used to build sophisticated user interfaces. ADO.NET is described in the context of control data binding. Alternatives for web site deployment are demonstrated and discussed.

Learning Objectives...

- Introduce the .NET Framework and Visual Studio .NET
- Review the request/response cycle of a typical web application
- Discover the mechanism by which ASP.NET represents web applications using an event driven object oriented metaphor
- Learn to use the ASP.NET Page Object, HTML Controls, and Web Form Controls
- Introduce ADO.NET and especially data-bound controls
- Special emphasis is given to the DataList and DataGrid controls

Who should attend...

Audience includes individuals who are familiar with simple programming techniques in .NET, including some familiarity with object-oriented programming.

Prerequisites...

Course 460 or its equivalent is acceptable.

See next page for a detailed course outline...



Course Outline...

Introduction and Overview

Course Objectives

Unit 1: Review of Prerequisite Material (Optional)

What Is .NET?

- .NET Framework
- Microsoft Intermediate Language
- Common Language Runtime

Why Is .NET?

- Safer, more secure and more stable
- Run once, run always
- XCOPY installation

Introduction to Visual Studio .NET

- Tour of RAD Environment
- Tour of important files
- Tour of important project types

Expectations, You Know How To

- Write procedural code
- Have a basic understanding of object-oriented principles
- Use a debugger to step through code and watch variables

Unit 2: Review of Web Development

The Request Response Cycle

- Websites as document servers
- Websites as report writers
- Data transfer during browser requests and server responses

The ASP.NET Paradigm

- Websites as an event driven, object oriented activity
- The inline vs. code-behind model
- Server side HTML Controls
- Server side Web Form Controls
- Supporting events in a stateless environment (the VIEWSTATE control)

Client-side Dynamic Content

- Javascript
- DHTML
- The Visual Studio.NET Javascript Editor



Unit 3: Basic Web Forms

The Page Object

- The source of Page object information (.aspx, .aspx.cs, .aspx.vb)
- The Page object life cycle
- Events in ASP.NET
- Page Object Events
- Page Object Properties and Methods

Web Form Controls

- Simple Controls and Events (more on VIEWSTATE)
- Navigation Controls and Events (Response.Redirect vs Server.Transfer)
- Listing Controls (Introduction to AutoPostBack)
- Other Controls (Introduction to Javascript supported controls)

Unit 4: Advanced Web Forms

User Controls & Custom Controls

- .ascx pages as include files
- User Controls as an example of Visual Inheritance

Validation Controls

- Review of many validation controls
- Client side actions
- Server side actions

Advanced Events

- Sender as Object, e as EventArgs
- The various roles of “e” (images and buttons)
- CommandName and CommandArgument properties of buttons

Writing applications for multiple browser types

- ClientTarget
- TargetSchema

Style Sheets

- Introduction to Style Sheets
- The CSSClass and Class Properties

Programming HTML Outside the ASP.NET Object Model

- Declaring any HTML tag as a server side object
- Programming HTML tags outside the ASP.NET object model
- Examples

Exception Handling

- Handling errors
- Error pages (web.config and Page object properties)
- Tracing options



Unit 5: ADO.NET and Web Form Controls

ADO.NET Objects (Properties, Methods, Events)

- Database Specific: Connection, Command, Transaction, DataReader, DataAdapter objects
- Database Independent: The DataSet object

ASP.NET and ADO.NET

- Binding to simple Web Form Controls
- Binding to listing Web Form Controls
- The DataList Control
- The DataGrid Control

Unit 6: Deployment

- Deployment by FTP
- Deployment by Package and Deployment Wizard
- Other Deployment Strategies

Unit 7: Putting It All Together

What Has Been Learned

- Introduce the .NET Framework and Visual Studio .NET
- Review the request/response cycle of a typical web application
- Discover the mechanism by which ASP.NET represents web applications using an event driven object oriented metaphor
- Learn to use the ASP.NET Page Object, HTML Controls, and Web Form Controls

Introduce ADO.NET and especially data-bound controls

Please contact your ROI representative to discuss course tailoring!!!