

ASP.NET with Visual Basic .NET Training

Course length: 5 days

Course Web Page: <http://www.webucator.com/Net/ASN101.cfm>

Class Overview

This ASP.NET training course teaches students to use Visual Studio 2005 and Visual Basic 2005 to build ASP.NET 2.0 Web pages and XML Web services. Students learn to understand the new architecture behind ASP.NET 2.0, to use the new server controls, to create consistent web sites using Master Pages, to improve performance with output caching, add membership features, configure and deploy ASP.NET applications, to authenticate users and limit their access to resources, to direct users using new Site Navigation tools and to handle multi-user data access conflicts.

Class Goals

- Use ASP.NET server controls to generate HTML and to execute event procedures
- Promote consistency within your web site through Master Pages
- Retrieve and manipulate data using ADO.NET
- Display and edit data quickly and easily using new data binding features
- Use Membership features to manage your Web users
- Use new Site Navigation controls to direct users within your site
- Create and consume XML Web Services
- Take advantage of ASP.NET's versatile output caching to increase performance
- Add scalability and reliability by setting up an out-of-process session state server
- Create a Web Setup project in Visual Studio to build a deployment package that takes advantage of Windows Installer

Class Prerequisites

- Visual Studio .NET
- Visual Basic .NET

Class Outline

- **Introduction to ASP.NET**
 - A Review of Classic ASP
 - ASP.NET Web Applications
 - Rendering HTML with Server Controls
 - Data Binding in ASP.NET 2.0
- **What's New in ASP.NET 2.0**
 - New Features in ASP.NET 2.0
 - Designer Features
 - Deployment and Configuration Tools
 - Increasing Productivity

- **Working with Controls**
 - Introduction to Web Controls
 - Simple Input Controls
 - HyperLink and Button Controls
 - List Controls
 - Controlling Focus
- **Using Rich Server Controls**
 - Introduction to Rich Controls
 - The Calendar Control
 - The AdRotator Control
 - The XML Control
- **Accessing Data**
 - Overview of ADO.NET
 - Connecting to Data
 - Executing Commands
 - Working with Data
 - Choosing an ADO.NET Provider
- **Configuration**
 - Configuration Overview
 - Using the Web Site Administration Tool
 - Programming Configuration Files
 - Encrypting Configuration Sections
- **Data Binding**
 - Introducing Data Source Controls
 - Reading and Write Data Using the SqlDataSource Control
 - Displaying and Editing Middle-Tier Data using the ObjectDataSource Control
 - Displaying XML Data Using the XmlDataSource Control
- **Validating User Input**
 - Overview of ASP.NET Validation Controls
 - Using the Simple Validators
 - Using the Complex Validators
 - Summarizing Results with the ValidationSummary Control
 - Separating Validation into Validation Groups
- **Themes and Master Pages**
 - Creating a Consistent Web Site
 - ASP.NET 2.0 Themes
 - Master Pages
- **Site Navigation**
 - Providers and Data Sources
 - Creating an XML Site Map File
 - Site Navigation Controls
 - Using the Site Navigation API
 - URL Mapping
 - Security Trimming

- **Displaying Data with the GridView Control**
 - Introducing the GridView Control
 - Filter Data in the GridView Control
 - Allow Users to Select from a DropDownList in the Grid
 - Add a Hyperlink to the Grid
 - Deleting a Row and Handling Errors
- **Managing State**
 - Preserving State in Web Applications
 - Page-Level State
 - Using Cookies to Preserve State
 - ASP.NET Session State
 - Storing Objects in Session State
 - Configuring Session State
 - Setting Up an Out-of-Process State Server
 - Storing Session State in SQL Server
 - Using Cookieless Session IDs
 - Application State
- **Managing Users with ASP.NET's Membership Features**
 - Introduction to Membership and Roles
 - Using Membership Controls
 - Writing Code to Interact with Membership and Roles
- **Debugging ASP.NET Applications**
 - The Importance of Caching
 - Declarative Page Output Caching
 - Caching Page Fragments
 - Post-Cache Substitution
 - Caching Configuration
- **Tracing**
 - The Importance of Caching
 - Declarative Page Output Caching
 - Caching Page Fragments
 - Post-Cache Substitution
 - Caching Configuration
- **Creating New Controls**
 - The Importance of Caching
 - Declarative Page Output Caching
 - Caching Page Fragments
 - Post-Cache Substitution
 - Caching Configuration
- **Improving Performance with Output Caching**
 - The Importance of Caching
 - Declarative Page Output Caching
 - Caching Page Fragments
 - Post-Cache Substitution
 - Caching Configuration

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- **Advanced Caching**

- Overview of List-Bound Controls
- Creating a Repeater Control
- Creating a DataList Control

Class Materials

Each student will get a copy of *Programming Microsoft ASP.NET 2.0 Core Reference* by Dino Esposito, in addition to a comprehensive set of materials, including course notes and all the programming examples.

Technical Requirements

- Visual Studio .NET 2005
- Microsoft SQL Server
- Windows Operating System (One of the following)
 - Windows 2000 Professional or Server
 - Windows XP Professional
 - Windows .NET Server

For more information...

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