

Developing Microsoft ASP.NET 2.0 Web Applications

Course 3201: Three days; Instructor-Led

Introduction

This three-day ILT course provides students with the knowledge and skills to create ASP.NET 2.0 applications. It will show the advancements from ASP.NET 1.x to ASP.NET 2.0 in creating applications. The course focuses on the new features and functionality of ASP.NET. The course includes sample code in both Microsoft Visual Basic .NET and Microsoft Visual C#.

Learning Product Pilot

This course pilots the use of a Microsoft Press reference book, combined with a comprehensive Hands-On Lab manual, in an instructor led environment. This class includes the book *Introducing Microsoft ASP.NET 2.0* (ISBN 0-7356-2024-5), written by Dino Esposito, along with a Hands-On Lab manual that covers the practices, labs and demonstrations included in the course. In this format, you receive an instructionally designed course as you would in a traditional Microsoft Official Course with the additional benefit of receiving a Microsoft Press reference book.

Visual Studio 2005 Beta 2

This course uses Visual Studio 2005 beta 2. The book that accompanies this course *Introducing Microsoft ASP.NET 2.0* is based on the earlier Visual Studio 2005 beta 1 release. The course student workbook provides additional information to update the content in the book from beta 1 to beta 2.

Audience

This course is intended for experienced, professional Web application developers, including those employed by software companies or working on corporate development teams.

At Course Completion

After completing this course, students will be able to:

- Describe advancements from ASP.NET 1.x to ASP.NET 2.0 in creating applications.
- Develop new Web solutions using ASP.NET 2.0 features and functionality.

Prerequisites

Before attending this course, students must have:

- Experience developing .NET Web applications using ASP.NET 1.0/1.1
- HTML
- XML
- ADO.NET (1.0/1.1)

Course Outline

Module 1: Creating an ASP.NET 2.0 Application

This chapter covers the entities that form the foundation of Web applications written with ASP.NET 2.0.

Lessons

- Lesson: Evaluating the Features of the New Web Development Environment
- Lesson: Building Shared Code
- Lesson: Working with the Page Object Model

Lab: Creating an ASP.NET 2.0 Application

After completing this module, students will be able to:

- Describe the features of the new Web development environment.
- Use the Compile-on-Demand functionality.
- Use the Page Object model to build a Web form.

Module 2: Working With Master Pages

In this module, students will learn how master pages allow developers to reuse code across pages.

Lessons

- Lesson: The Advantages of Using Master Pages
- Lesson: Authoring Master and Content Pages
- Lesson: Writing Nested Master Pages
- Lesson: Programming Master Pages

Lab: Writing Master Pages and Content Pages

After completing this module, students will be able to:

- Describe the advantages of using master pages.
- Write master pages and their corresponding content pages.
- Create nested master pages.
- Program master pages.

Module 3: Manipulating Data in ASP.NET 2.0

This module describes the new ASP.NET 2.0 data source model, the data-binding mechanism, and the process of connecting a Web control to a data source element. Students will learn to use the new data access features.

Lessons

- Lesson: Using Data Binding
- Lesson: Using Data Providers
 - Lesson: Using Data Source Components
- Lesson: Using Data Source Controls to Expose Standard Data Operations
- Lesson: Working with Data-Bound Controls
- Lesson: Working with Composite Data-Bound Controls

Lab: Manipulating Data

After completing this module, students will be able to:

- Use data binding enhancements.
- Use .NET data providers.
- Use data source components to support the declarative model of binding.
- Describe the ASP.NET 2.0 data binding-enhancements.
- Describe the ASP.NET 2.0 data provider enhancements.
- Describe Data Source Components.
- Describe the different Data Source controls.
- Describe the different Data-Bound controls.

Module 4: Working with ASP.NET 2.0 Wizards and Site Navigation

In this module, students will look in more depth at wizards and site navigation functions.

Lessons

- Lesson: Creating a Wizard Control
- Lesson: Implementing Site Navigation

Lab: Using the CreateWizard Control

After completing this module, students will be able to:

- Create a Wizard control.
- Implement the site navigation control

Module 5 Working with ASP.NET 2.0 State Management

In this module, students will learn how ASP.NET 2.0 goes beyond the ASP.NET 1.x Cache object and ASP Application and Session objects. ASP.NET 2.0 introduces control state for custom ASP.NET controls, custom session-state management options, and a mechanism for handling custom cache dependencies, including SQL Server database dependencies.

Lessons

- Lesson: Comparing the View State and the Control State
- Lesson: Customizing the Session State Mechanism
- Lesson: Improving Performance with Caching

Lab: State Management

After completing this module, students will be able to:

- Use the Control State in ASP.NET 2.0 and avoid the common problems associated with information persisting across postbacks.
- Extend the Session State Mechanism.
- Work with the ASP.NET Cache Object.

Module 6: Managing Web Parts

In this module, students will learn how the Web Parts framework provides a simple and familiar way for ASP.NET developers to create modular Web applications that support end-user personalization.

Lessons

- Lesson: Introduction to Developing Web Parts
- Lesson: Building Pages with Web Parts
- Lesson: Editing and Listing Web Parts
- Lesson: Connecting Web Parts

Lab: Developing Web Parts

After completing this module, students will be able to:

- Build pages with Web part server controls.
- Create user editable Web parts.
- Enable Web part connectivity.

Module 7: Customizing Web Sites with User Profiles and Themes

In this module, students will learn how to build an effective personalization layer into a Web application by employing user profiles and themes.

Lessons

- Lesson: Managing User Profiles
- Lesson: Using Themes
- Lesson: Using Themes

Lab: Personalizing Applications with User Profiles and Themes

After completing this module, students will be able to:

- Customize Web applications by using user profiles and themes.

Module 8: Implementing ASP.NET 2.0 Security

In this module students will learn how forms-based authentication in ASP.NET 2.0, which is arguably the only viable approach to restricting access to real-world Web sites, is even easier and quicker to use.

Lessons

- Lesson: Using Forms Authentication
- Lesson: Using Security-Related Controls
- Lesson: Managing Membership and Roles for Web Sites

Lab: Implementing ASP.NET 2.0 Security

After completing this module, students will be able to:

- Use cookieless authentication for forms.
- Implement ASP.NET 2.0 security controls.
- Use the Membership class for authenticating users.

Module 9: Working with ASP.NET 2.0 Configuration and Instrumentation

In this module students will learn how to use the tools that ASP.NET 2.0 supplies to programmatically update the configuration files.

Lessons

- Lesson: Changes to the Configuration Schema for ASP.NET 2.0
- Lesson: Using the Configuration API
- Lesson: The Health Monitoring API

Lab: ASP.NET Configuration and Instrumentation

After completing this module, students will be able to:

- Describe schema changes to the configuration files.
- Use the ASP.NET Administrative Tool to change configuration settings.
- Use the health monitoring API.