

ASP.NET: Using VisualBasic.NET, ADO.NET, and XML

Course length: 5 days

Course Description

You already know how to write simple, static Web pages using HTML and perhaps Cascading Style Sheets and client-side JavaScript code. Now you are ready to create dynamic Web pages using the latest Microsoft server-side technology: ASP.NET.

Course Objective: You will create ASP.NET Web pages that dynamically display content, display, manipulate, and modify data in a relational database, and display, manipulate, and modify XML data.

Target Student: Programmers at any skill level interested in writing ASP.NET applications.

Prerequisites: To ensure your success, it is required that you first take the following courses or have equivalent knowledge:

- Object-Oriented Programming: Principles
- .NET Framework: Introduction
- HTML 4.01: Level 1
- HTML 4.01: Level 2

Knowledge of VisualBasic.NET, or prior experience with VB6 or VBScript, is also required. If you will be using VisualStudio.NET in the course, then we recommend Visual Studio.NET Introduction, or prior experience with Visual Basic, Visual C++, or Visual InterDev. Prior experience with ASP Classic (2.0 or 3.0) is helpful, but not required. Knowledge of XML basics is also helpful, and so we recommend XML Introduction (Second Edition). Knowledge of SQL is also recommended, though not required.

Delivery Method: Instructor led, group-paced, classroom-delivery learning model with structured, hands-on activities.

Performance-Based Objectives

Upon successful completion of this course, students will be able to:

- Write your first ASP.NET Web pages by using the basic features of the Page class.
- Increase the separation of code from content and the modularity of your code.
- Create Web forms using Web controls.
- Display and modify data from a database by using ADO.NET with ASP.NET Web controls.
- Manipulate and update data using ADO.NET datasets.
- Read, write, edit, and validate XML documents.
- Convert and transform XML data.
- Design and configure numerous aspects of an ASP.NET application.

Course Content

Lesson 1: Writing Basic ASP.NET Pages

Topic 1A: Write a Simple ASP.NET Web Page

Topic 1B: Output Content and Redirect to a Different Page

Topic 1C: Pass User Information Between Pages



Topic 1D: Store and Retrieve Data Using a Cookie
Topic 1E: Perform Browser Detection
Topic 1F: Transfer Processing

Lesson 2: Increasing Code Separation and Modularity

Topic 2A: Separate Code From Content with HTML Controls
Topic 2B: Implement a Postback Form
Topic 2C: Increase Code Separation with a Code-behind File
Topic 2D: Increase Modularity with a User Control

Lesson 3: Creating Web Forms with Web Controls

Topic 3A: Create a Web Form Using ASP.NET Web Controls
Topic 3B: Create Grouped Elements with List Controls
Topic 3C: Display Data with a Repeater Control
Topic 3D: Display Data with a DataList Control
Topic 3E: Display Data with a DataGrid Control
Topic 3F: Verify User Input with Validation Controls
Topic 3G: Rotate Banner Ads with the Ad Rotator Control
Topic 3H: Create a Calendar Using a Calendar Control

Lesson 4: Accessing Databases with ADO.NET

Topic 4A: Display Data from a Database
Topic 4B: Display Data From a Database Using Web Controls
Topic 4C: Customize Databound Results Using Style Sections
Topic 4D: Customize Databound Results Using Templates
Topic 4E: Modify Data with SQL Commands

Lesson 5: Manipulating Data with ADO.NET DataSets

Topic 5A: Create a DataSet with Multiple Tables
Topic 5B: Display Data from Related Tables
Topic 5C: Manipulate Data in a DataGrid Control
Topic 5D: Modify DataSet Records and Merge

Lesson 6: Programming XML Documents with ASP.NET

Topic 6A: Access and Display an XML Document
Topic 6B: Validate an XML Document Using a Schema
Topic 6C: Search an XML Document for Specific Information
Topic 6D: Edit an XML Document
Topic 6E: Write XML Documents to Disk

Lesson 7: Converting and Transforming XML Data with ASP.NET

Topic 7A: Write Data From a DataSet to an XML Document
Topic 7B: Create Nested XML from a DataSet Object
Topic 7C: Read Data into a DataSet from an XML Document
Topic 7D: Transform an XML Document
Topic 7E: Output XSLT Results Using the XML Control

Lesson 8: Architecting and Configuring an ASP.NET Application

Topic 8A: Configure an ASP.NET Application
Topic 8B: Configure ASP.NET Error Tracing
Topic 8C: Manage Application State
Topic 8D: Preserve Session State
Topic 8E: Cache Page Output
Topic 8F: Cache a User Control



Appendix A: Page Object Members

Appendix B: Regular Expression Syntax Summary

Appendix C: XPath Expression Syntax and Examples

Appendix D: Critical ASP.NET Resources

