Course Overview

This course will teach Microsoft® Visual Basic® programmers and beginning Web developers the fundamentals of Web application site implementation by using Microsoft ASP.NET and Microsoft Visual Basic .NET.

Who Should Attend

This course is intended for beginning Web developers who have knowledge of the Hypertext Markup Language (HTML) or dynamic HTML (DHTML), along with some knowledge of a scripting language, such as Visual Basic Scripting Edition or Microsoft JScript. This course is also appropriate for Visual Basic 6.0 developers wanting to learn ASP.NET.

Course Objectives

After completing this course, students will be able to:
- Explain the Microsoft .NET Framework and ASP.NET
- Create a component in Visual Basic .NET or C#
- Create an ASP.NET Web application project by using Visual Studio .NET
- Add server controls to an ASP.NET Web Form
- Create and populate ASP.NET Web Forms
- Add functionality to server controls that are on an ASP.NET Web Form
- Use the Trace and Debug objects that are provided with Visual Studio .NET
- Use validation controls to validate user input
- Create a user control
- Access data by using the built-in data access tools that are available in Visual Studio .NET
- Use Microsoft ADO.NET to access data in an ASP.NET Web application
- Accomplish complex data access tasks from an ASP.NET Web application
- Access Extensible Markup Language (XML) data and read it into a DataSet
- Call an XML Web service from an ASP.NET Web application and incorporate the returned data into a Web application
- Store application and session data by using a variety of methods
- Configure and deploy an ASP.NET Web application
- Help protect an ASP.NET Web application by using a variety of technologies

Course Outline

1 Overview of the Microsoft .NET Framework
   Introduction to the .NET Framework
   Overview of ASP.NET
   Overview of the Lab Application
   Resources

2 Using Microsoft Visual Studio .NET
   Overview of Visual Studio .NET
   Creating an ASP.NET Web Application Project
3 Using Microsoft .NET-Based Languages
   Overview of the .NET-Based Languages
   Comparison of the .NET-Based Languages
   Creating a Component Using Visual Studio .NET
4 Creating a Microsoft ASP.NET Web Form
   Creating Web Forms
   Using Server Controls
5 Adding Code to a Microsoft ASP.NET Web Form
   Using Code-Behind Pages
   Adding Event Procedures to Web Server Controls
   Using Page Events
6 Tracing in Microsoft ASP.NET Web Applications
   Understanding Tracing
   Remote Debugging
7 Validating User Input
   Overview of User Input Validation
   Using Validation Controls
   Page Validation
8 Creating User Controls
   Adding User Controls to an ASP.NET Web Form
   Creating User Controls
9 Accessing Relational Data Using Microsoft Visual Studio .NET
   Overview of ADO.NET
   Creating a Connection to the Database
   Displaying a DataSet in a List-Bound Control
10 Accessing Data with Microsoft ADO.NET
   Introduction to Using ADO.NET
   Connecting to a Database
   Accessing Data with DataSets
   Using Multiple Tables
   Accessing Data with DataReaders
11 Calling Stored Procedures with Microsoft ADO.NET
   Overview of Stored Procedures
   Calling Stored Procedures
12 Reading and Writing XML Data
   Overview of XML Architecture in ASP.NET
   XML and the DataSet Object
   Working with XML Data
   Using the XML Web Server Control
13 Consuming and Creating XML Web Services
- Overview of Using XML Web Service
- Calling an XML Web Service by HTTP
- Using a Proxy to Call an XML Web Service
- Creating an XML Web Service

14 Managing State
- State Management
- Application and Session Variables
- Cookies and Cookieless Sessions

15 Configuring, Optimizing, and Deploying a Microsoft ASP.NET Web Application
- Using the Cache Object
- Using ASP.NET Output Caching
- Configuring an ASP.NET Web Application
- Deploying an ASP.NET Web Application

16 Securing a Microsoft ASP.NET Web Application
- Web Application Security Overview
- Working with Windows-Based Authentication
- Working with Forms-Based Authentication
- Overview of Microsoft Passport Authentication

17 Review
- Review of Material Covered
- Introduction to the Game