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