MS-2063 - 3 days - Instructor-led (classroom)

Introduction to ASP.NET

Introduction

The goal of this course is to teach students how to create a simple Microsoft ASP.NET application that delivers dynamic content to the Web.

Audience

This course is intended for developers of Microsoft Active Server Pages (ASP). The course assumes that students are familiar with Hypertext Markup Language (HTML), client-side and server-side scripting, and Microsoft ActiveX Data Objects (ADO).

At Course Completion

At the end of the course, students will be able to:

- Create a Web form with server controls.
- Separate page code from content by using code-behind pages, page controls, and components.
- Display dynamic data from a data source by using Microsoft ADO.NET and data binding.
- Debug ASP.NET pages by using trace.

Course Outline

Module 1: Working with Microsoft ASP.NET

The following topics are covered in this module:

- Introducing ASP.NET
- Creating Web Forms
- Adding ASP.NET Code to a Page
- Handling Page Events
- Discussion: ASP vs. ASP.NET

At the end of this module, you will be able to:

- Identify the main features of ASP.NET.
- Identify the differences between ASP and ASP.NET.
- Describe the working model of ASP.NET.
- Describe the architecture of server controls.
- Add a Hypertext Markup Language (HTML) server control to a page.
- Access the properties and methods of server controls in code.
- Add event handlers for page events.
- Use the **IsPostback** property to handle postback forms.

Module 2: Using Web Controls

The following topics are covered in this module:

- What are Web Controls?
- Using Intrinsic Controls
- Using Input Validation Controls
- Selecting Controls for Applications

At the end of this module, you will be able to:

- Add Web controls to an ASP.NET page.
- Use properties, methods, and events of Web controls.
- Validate user input on an ASP.NET page by using input validation controls.
- Bind two controls together.

Module 3: Using Microsoft ADO.NET to Access Data

The following topics are covered in this module:

- Overview of ADO.NET
- Connecting to a Data Source
- Accessing Data with DateSets
- Using Stored Procedures
- Accessing Data with DataReaders
- Binding to Extensible Markup Language (XML) Data

At the end of this module, you will be able to:

- Describe the ADO.NET object model.
- Connect to a data source by using ADO.NET.
- Retrieve data from a database by using **DataReaders** and **DataSets**.
- Display the data from a database on the client by using list-bound controls.
- Customize the look of **Repeater** controls with templates.
- Use stored procedures to return **Recordsets**.
- Read data from an XML file into **DataSets**.

Module 4: Separating Code from Content

The following topics are covered in this module:

- Advantages of Partitioning an ASP.NET Page
- Creating and Using Code-Behind Pages
- Creating and Using User Controls
- Creating and Using Components

At the end of this module, you will be able to:

- Explain the need for code-behind pages.
- Create a code-behind page and use it with an ASP.NET page.
- Explain the advantages of user controls.
- Explain how user controls work.
- Create a component in Visual Basic.
- Use a component in an ASP.NET page.

Module 5: Using Trace in Microsoft ASP.NET Pages

The following topics are covered in this module:

- Overview of Tracing
- Trace Information
- Page-Level Trace
- Application-Level Trace

At the end of this module, you will be able to:

- Describe page-level and application-level tracing.
- Enable and disable tracing for an ASP.NET page.
- Add custom trace information.

Module 6: Using Web Services

The following topics are covered in this module:

- What is a Web Service?
- Calling a Web Service from a Browser
- Calling a Web Service by Using a Proxy
- Creating a Simple Web Service by Using Visual Basic
- Creating and Calling a Web Service by Using Visual Studio .NET

At the end of this module, you will be able to:

- Explain the goal of Web services and how they fit into the Web architecture.
- Describe the Web services execution model.
- Call a Web service from a browser.
- Call a Web service by using a proxy.
- Use the data returned by a Web service.
- Create a simple Web service by using Visual Basic.

Module 7: Creating a Microsoft ASP.NET Web Application

The following topics are covered in this module:

- Requirements of a Web Application
- What is New in ASP.NET?
- Sharing Information Between Pages
- Securing an ASP.NET Application

At the end of this module, you will be able to:

- Describe cookie-less sessions.
- Set up cookie-less sessions in the web.config file.
- Use event procedures in global.asax.
- Set up page output caching for ASP.NET pages.
- Share information between pages of an ASP.NET application by using ASP.NET cache, web.config, session variables, and a database.
- Describe how authentication works.
- Set up authentication for an application in web.config.