msdn® training

Introduction

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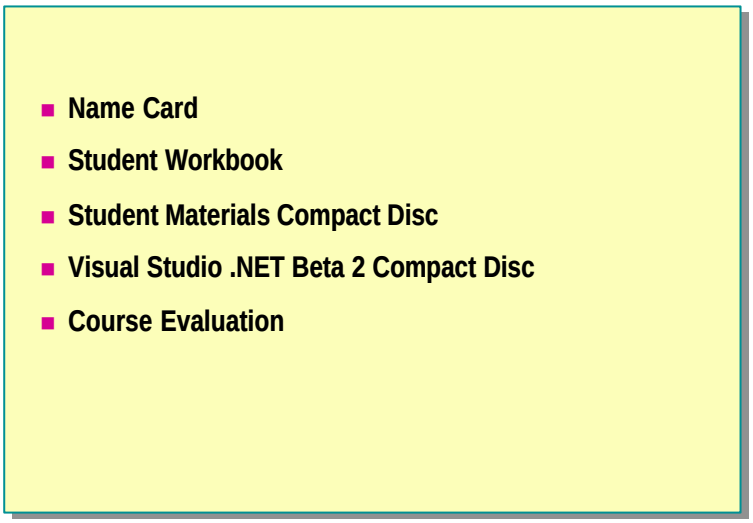
Introduction

- Name
- Company Affiliation
- Title/Function
- Job Responsibility
- HTML, Visual Basic Programming, ASP, ADO, and Database Experience
- Expectations for the Course

Course Materials



The following materials are included with your kit:

- *Name card.* Write your name on both sides of the name card.
- *Student workbook*. The student workbook contains the material covered in class, in addition to the hands-on lab exercises.
- *Student Materials compact disc*. The Student Materials compact disc contains the Web page that provides you with links to resources pertaining to this course, including additional readings, review and lab answers, lab files, multimedia presentations, and course-related Web sites.

Note To open the Web page, insert the Student Materials compact disc into the CD-ROM drive. Then, in the root directory of the compact disc, double-click **Autorun.exe** or **Default.htm**.

- *Visual Studio .NET Beta 2 compact disc.* The course is being shipped with the Visual Studio .NET Beta 2 compact disc because the course's executable elements are compatible only with the Beta 2 version. The labs and demonstrations in the course will not run with the final version of ASP.NET.
- *Course evaluation*. At the conclusion of this course, please complete the course evaluation to provide feedback about the instructor, course, and software product. Your comments will help us improve future courses.

  To provide additional comments or inquire about the Microsoft Certified Professional program, send e-mail to mcp@msprograms.com.

Prerequisites

- **Create forms and tables in HTML**
- **Write Visual Basic or VBScript code**
- **Create an Active Server Page**
- **Retrieve data from a relational database using ADO**

This course requires that you meet the following prerequisites:

- Create forms and tables in Hypertext Markup Language (HTML)
- Write Microsoft® Visual Basic® or Visual Basic Scripting Edition (VBScript code)
- Create an Active Server Page (ASP)
- Retrieve data from a relational database by using Microsoft ActiveX® Data Objects (ADO)

Course Objectives

- **Create a Web form with server controls**
- **Separate page code from content with code-behind pages, user controls, and components**
- **Display dynamic data from a data source using Microsoft ADO.NET and data binding**
- **Debug ASP.NET pages using trace**
- **Use a Web service to enhance a Web application**
- **Add configuration, authentication, and state management to an ASP.NET Web application**

After completing this course, students will be able to:

- Create a Web form with server controls.
- Separate page code from content with code-behind pages, user controls, and components.
- Display dynamic data from a data source by using Microsoft ADO.NET and data binding.
- Debug ASP.NET pages using trace.
- Use a Web service to enhance a Web application.
- Add configuration, authentication, and state management to an ASP.NET Web application.

Course Outline

- Module 1: Working with Microsoft ASP.NET
- Module 2: Using Web Controls
- Module 3: Using Microsoft ADO.NET to Access Data
- Module 4: Separating Code from Content
- Module 5: Using Trace in Microsoft ASP.NET Pages
- Module 6: Using Web Services
- Module 7: Creating a Microsoft ASP.NET Web Application

Module 1, "Working with Microsoft® ASP.NET," introduces the ASP.NET language. It provides an overview of the features of ASP.NET and introduces the execution model of ASP.NET. The module also shows how to add server-side code to the controls on a page. After completing this module, you will be able to add server controls and code to an ASP.NET page.

Module 2, " Using Web Controls," introduces the Web controls that are new with ASP.NET. You will learn what a Web control is, how to add it to an ASP.NET page, and how to access its properties, methods, and events. You will learn how to use input validation controls and the **DataGrid** control. After completing this module, you will be able to use Web controls in an ASP.NET page.

Module 3, " Using Microsoft® ADO.NET to Access Data," describes how to access data in an ASP.NET page by using ADO.NET. This module starts with an overview and then moves into the specifics of how to use ADO.NET. After completing this module, you will be able to access dynamic data from a data source by using ADO.NET.

Module 4, "Separating Code from Content," describes how to partition an ASP.NET page to separate out the code. You learn about the various methods that can be used to separate code from content, such as code-behind pages, user controls, and components. After completing this module, you will be able to create a code-behind page to hold code in an ASP.NET page.

Module 5, " Using Trace in Microsoft® ASP.NET Pages," demonstrates how to use the trace feature of ASP.NET to debug ASP.NET pages. Both page-level and application-level tracing are covered in the module. After completing this module, you will be able to debug ASP.NET pages by using the trace feature.

Module 6, " Using Web Services," describes Web services and explains how they expand a Web developer's toolbox. You will learn how to use a Web service and the code to create a simple Web service. After completing this module, you will be able to use a Web service to enhance your Web application.

Module 7, "Creating a Microsoft® ASP.NET Web Application," describes the technologies in ASP.NET that are necessary for creating real-world Web applications, such maintaining state, global files, configuration and deployment, and security. After completing this module, you will be able to create an ASP.NET Web application by integrating ASP.NET pages.

Setup

- **Microsoft Windows 2000 Server**
  - Internet Information Services 5.0
- **Microsoft SQL Server 2000, Standard Edition**
- **Microsoft Internet Explorer 5.5**
- **Microsoft Visual Studio .NET, Beta 2**
- **Microsoft .NET Framework SDK, Beta 2**
- **Lab and Demonstration Course Files**

The following software and resource materials will be used in the classroom:

- Microsoft Windows® 2000 Server
- Internet Information Services 5.0
- Microsoft SQL Server 2000, Standard Edition
- Microsoft Internet Explorer 5.5
- Microsoft Visual Studio .NET, Beta 2
- Microsoft .NET Framework software development kit (SDK), Beta 2
- Macromedia Flash player
- Lab and Demonstration Course files

Course Files

There are starter and solution files associated with the labs in this course. The starter files are located in the folder <*install folder*>\Labs\Lab0x\Starter and the solution files for this lab are in the folder <*install folder*>\Labs\Lab0x\Solution, where Lab0x corresponds with the current lab.

There are files associated with the demonstrations in this course. These files are located in the folder <*install folder*>\DemoCode\Mod0x, where Mod0x corresponds with the current module.

Note If you performed a default installation of the course files, <*install folder*> will be c:\Program Files\Msdntrain\2063.

Lab Overview

The labs for this course build upon one another to create a complete application. The lab application is a Conference Web site. On the Web site, users can view the pre-conference tutorials and the sessions being offered in the different tracks of the conference. They can choose from these offerings and then register for the conference. They can also make a reservation at a hotel for the duration of the conference.

The lab application uses a SQL Server database named Conf. For an illustration of the Conf database schema, see Appendix B in Course 2063B, *Introduction to Microsoft ASP.NET*.

Lab Application Files

The following is a list of all the files that are used by the lab application and their purpose.

File name	Purpose	Lab file is used in
_header.ascx	User control that contains a heading for each page of the Web site.	Multiple
_menu.ascx	User control that contains a menu for the Web site and is placed on each page of the Web site.	Labs 3 and 4
AddToCart.aspx	Adds a product to the shopping cart, then redirects to the shopping cart page.	Multiple
CheckOut.aspx	Allows users to view the information in the shopping cart and then select the hotel they want to stay in.	Lab 7
Conference.css	Style sheet for the user interface.	Multiple
Conflogo.swf	Flash animation embedded in Default.aspx page.	Multiple

(*continued*)

File name	Purpose	Lab file is used in
Web.config	Configuration information.	Lab 7
Default.aspx	Home page for the Web application.	Multiple
Errorpage.aspx	Redirection page in case of any error.	Multiple
Hotel_reservation.aspx	Allows users to reserve a hotel room by specifying the type of room and the dates for which the room is needed.	Labs 2 and 6
Login.aspx	Allows users to sign in to the conference system by supplying their e-mail names and passwords.	Labs 1 and 7
ProductDetails.aspx	Outputs detailed information about pre-conference tutorial, track, or proceedings.	Multiple
ProductsList.aspx	Displays the different products (tutorials, tracks, and proceedings) available in the conference.	Labs 3, 4, and 5
Register.aspx	Allows new users to register for the conference.	Labs 2 and 7
SearchResults.aspx	Outputs products based on search criteria.	Multiple
ShoppingCart.aspx	All code to manage the user interface (UI) of the shopping cart.	Multiple

Component Files

The following is a list of all the files in the conference.dll component.

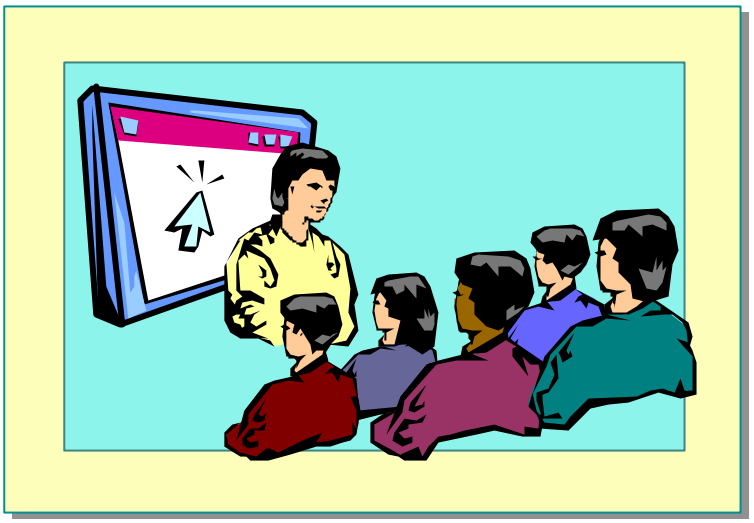
File name	Purpose	Lab file is used in
ConferenceDB.vb	Programmatic access to the database connection string.	Multiple
CustomersDB.vb	Programmatic access to the Customer table in the database.	Multiple
GetProducts.vb	Programmatic access to the GetProductsByCategory stored procedure.	Lab 4
mk.bat	Makefile to create the component.	Multiple
OrdersDB.vb	Programmatic access to the Orders table in the database.	Multiple
ProductsDB.vb	Programmatic access to the Products table in the database.	Multiple

Web Services

The following is a list of all the Web Service files used by the lab application.

File name	Purpose	Lab file is used in
Hotel_empty.asmx	Web service for a hotel named Empty.	Multiple
Hotel_full.asmx	Web service for a hotel named Full.	Lab 6
mkServices.bat	Makefile to create a proxy for the Web Services.	Lab 6

Lab Demonstration



In this demonstration, you will see how a user would use the Conference Web application to register for a conference and reserve a room in a hotel.

↙ To run the demonstration

1. Start Internet Explorer and enter the Uniform Resource Locator (URL) for the lab solution Web site, http://localhost/labsolution. This displays the home page default.aspx, which contains the two user controls: _header.ascx and _menu.ascx.
2. On the home page, click **Pre-Conference Tutorials** to view the details of all the tutorials that are offered on the ProductsList.aspx page.
3. Click on one of the subjects to obtain further details, such as the venue and time for the tutorials, on the ProductDetails.aspx page.
4. Click **Add to Cart** to purchase the tutorial that you are viewing. This goes to the ShoppingCart.aspx page.

> **Note** You can also add an item to the shopping cart from the ProductsList.aspx page.

5. On the ShoppingCart.aspx page, change the quantity of an item or delete it from the cart, then click **Update your Shopping Cart** to see the changes.
6. Repeat steps 2-5 for the **Conference Tracks** and **Conference Proceedings** links.
7. Enter a phrase in the **Search** text box and click **Go!** This calls the SearchResults.aspx page and displays all conference items related to the search string. You can also add items to the shopping cart from this page.
8. Click the **Shopping Cart** icon to jump to the ShoppingCart.aspx page.

9. Click **Final Checkout** to buy the items in the shopping cart.
10. If you have not already logged in to the application, you will need to log in on the login.aspx page. Because you are new to the application, click **Click here!** to enter your information into the database on the Register.aspx page.

> **Note** A valid user name and password that you can use on the login.aspx page is: someone@microsoft.com, password.

11. On the Register.aspx page, enter the requested information, and then click **Submit**. This returns you to the ShoppingCart.aspx page.
12. On the ShoppingCart.aspx page, click **Final Checkout** again. This calls the Checkout.aspx page.
13. Review the items in your order, and then click **Submit** for a final checkout.
14. Select a hotel to stay at. Click either **Hotel Full** or **Hotel Empty**. This calls the hotel_reservation.aspx page.
15. In the hotel_reservation.aspx page, select a type of room, and then select the dates for your stay. Next, click **Submit**.

> **Note** Hotel Full will never have a room available; Hotel Empty will always have a room available.

16. Click the **Shopping Cart** icon again to show that the shopping cart is now empty.

Microsoft Certified Professional Program

The Microsoft Certified Professional program includes the following certifications:

- Microsoft Certified Systems Engineer + Internet (MCSE + Internet)
- Microsoft Certified Systems Engineer (MCSE)
- Microsoft Certified Database Administrator (MCDBA)
- Microsoft Certified Solution Developer (MCSD)
- Microsoft Certified Professional + Site Building (MCP + Site Building)
- Microsoft Certified Professional + Internet (MCP + Internet)
- Microsoft Certified Professional (MCP)
- Microsoft Certified Trainer (MCT)

For More Information See the " Certification" section of the Web page provided on the compact disc or the Microsoft Training and Certification Web site at http://www.microsoft.com/trainingandservices/

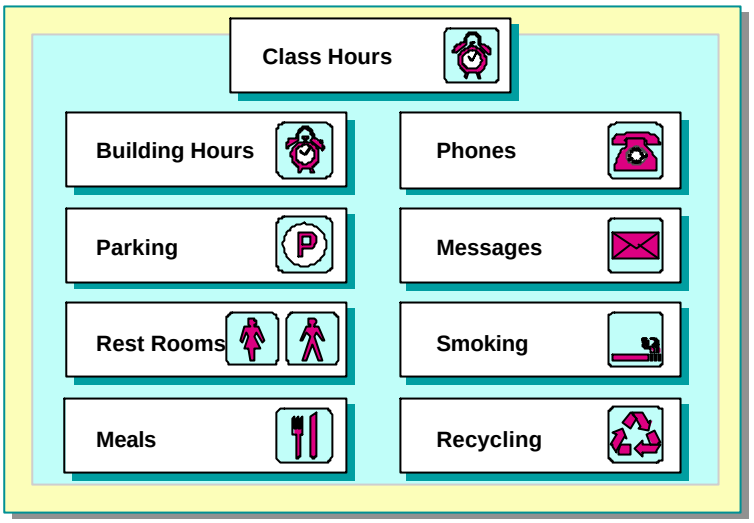
You can also send e-mail to mcp@msprograms.com if you have specific certification questions.

Exam Preparation Guides

To help prepare for the MCP exams, you can use the preparation guides that are available for each exam. Each Exam Preparation Guide contains exam-specific information, such as a list of the topics on which you will be tested. These guides are available on the Microsoft Certified Professional Web site at http://www.microsoft.com/trainingandservices/

Important MSDN® Training curriculum helps you to prepare for Microsoft Certified Professional (MCP) exams. However, no one-to-one correlation exists between MSDN Training courses and MCP exams. Passing MCP exams requires real-world experience with the products—MSDN Training courses help get you started.

Facilities


Class Hours
Building Hours
Phones
Parking
Messages
Rest Rooms
Smoking
Meals
Recycling