

## **DOT.NET MODULE 2: ASP DOT.NET**

### **UNIT 1 Introducing ASPNET**

1. The Evolution of Web Development
2. The Early Web Development World
3. What's Wrong with Classic ASP?
4. ASPNET
5. Seven Important Facts About ASPNET
6. Fact 1: ASPNET Is Integrated with the NET Framework
7. Fact 2: ASPNET Is Compiled, Not Interpreted
8. Fact 3: ASPNET Is Multilanguage
9. Fact 4: ASPNET Is Hosted by the Common Language Runtime
10. Fact 5: ASPNET Is Object-Oriented
11. Fact 6: ASPNET Is Multidevice and Multibrowser
12. Fact 7: ASPNET Is Easy to Deploy and Configure
13. ASPNET 35: The Story Continues
14. ASPNET 20
15. ASPNET 35

### **UNIT 2 Visual Studios**

1. The NET Development Model
2. The Compiler
3. The Visual Studio IDE
4. Websites and Web Projects
5. Creating a Projectless Website
6. Multitargeting
7. Designing a Web Page
8. The Visual Studio IDE
9. Solution Explorer
10. Document Window
11. Toolbox
12. Error List and Task List
13. Server Explorer
14. The Code Editor
15. Adding Assembly References
16. IntelliSense and Outlining
17. The Code Model
18. How Code-Behind Files Are Connected to Pages
19. How Control Tags Are Connected to Page Variables
20. How Events Are Connected to Event Handlers
21. Web Projects
22. Creating a Web Project
23. Migrating a Website from a Previous Version of Visual Studio
24. Visual Studio Debugging

25. Single-Step Debugging
26. Variable Watches
27. Advanced Breakpoints
28. Visual Studio Macros
29. The Web Development Helper

### **UNIT 3 Web Forms**

1. Page Processing
2. HTML Forms
3. Dynamic User Interface
4. The ASPNET Event Model
5. Automatic Postbacks
6. View State
7. XHTML Compliance
8. Web Forms Processing Stages
9. Page Framework Initialization
10. User Code Initialization
11. Validation
12. Event Handling
13. Automatic Data Binding
14. Cleanup
15. A Page Flow Example
16. The Page As a Control Container
17. Showing the Control Tree
18. The Page Header
19. Dynamic Control Creation
20. The Page Class
21. Session, Application, and Cache
22. Request
23. Response
24. Server
25. User
26. Trace
27. Accessing the HTTP Context in Another Class

### **UNIT 4 Server Controls**

1. Types of Server Controls
2. The Server Control Hierarchy
3. HTML Server Controls
4. The HtmlControl Class
5. The HtmlContainerControl Class
6. The HtmlInputControl Class
7. The HTML Server Control Classes
8. Setting Style Attributes and Other Properties

9. Programmatically Creating Server Controls
10. Handling Server-Side Events
11. Web Controls
12. The WebControl Base Class
13. Basic Web Control Classes
14. Units
15. Enumerations
16. Colors
17. Fonts
18. Focus
19. The Default Button
20. Scrollable Panels
21. Handling Web Control Events
22. The List Controls
23. The Selectable List Controls
24. The BulletedList Control
25. Input Validation Controls
26. The Validation Controls
27. The Validation Process
28. The BaseValidator Class
29. The RequiredFieldValidator Control
30. The RangeValidator Control
31. The CompareValidator Control
32. The RegularExpressionValidator Control
33. The CustomValidator Control
34. The ValidationSummary Control
35. Using the Validators Programmatically
36. Validation Groups
37. Rich Controls
38. The AdRotator Control
39. The Calendar Control

## **UNIT 5 ASPNET Applications**

1. Anatomy of an ASPNET Application
2. The Application Domain
3. Application Lifetime
4. Application Updates
5. Application Directory Structure
6. The globalasax Application File
7. Application Events
8. Demonstrating Application Events
9. ASPNET Configuration
10. The machineconfig File
11. The webconfig File
12. <systemweb> Settings

13. Reading and Writing Configuration Sections Programmatically
14. The Website Administration Tool (WAT)
15. Extending the Configuration File Structure
16. Encrypting Configuration Sections
17. NET Components
18. Creating a Component
19. Using a Component Through the App\_Code Directory
20. Using a Component Through the Bin Directory
21. Extending the HTTP Pipeline
22. HTTP Handlers and HTTP Modules
23. Creating a Custom HTTP Handler
24. Configuring a Custom HTTP Handler
25. Registering HTTP Handlers Without Configuring IIS
26. Creating an Advanced HTTP Handler
27. Creating an HTTP Handler for Non-HTML Content
28. Creating a Custom HTTP Module

## **UNIT 6 State Management**

1. ASPNET State Management
2. View State
3. A View State Example
4. Storing Objects in View State
5. Retaining Member Variables
6. Assessing View State
7. View State Security
8. Transferring Information Between Pages
9. The Query String
10. Cross-Page Posting
11. Cookies
12. Session State
13. Session Architecture
14. Using Session State
15. Configuring Session State
16. Securing Session State
17. Application State
18. Static Application Variables

## **UNIT 7 Rich Data Controls**

1. The GridView
2. Defining Columns
3. Formatting the GridView
4. Formatting Fields
5. Styles
6. Formatting-Specific Values

7. GridView Row Selection
8. Using Selection to Create a Master-Details Form
9. The SelectedIndexChanged Event
10. Using a Data Field As a Select Button
11. Sorting the GridView
12. Sorting with the SqlDataSource
13. Sorting with the ObjectDataSource
14. Sorting and Selection
15. Advanced Sorting
16. Paging the GridView
17. Automatic Paging
18. Custom Pagination with the ObjectDataSource
19. Customizing the Pager Bar
20. GridView Templates
21. Using Multiple Templates
22. Editing Templates in Visual Studio
23. Binding to a Method
24. Handling Events in a Template
25. Editing with a Template
26. The ListView
27. Grouping
28. Paging
29. The DetailsView and FormView
30. The DetailsView
31. The FormView
32. Advanced Grids
33. Summaries in the GridView
34. A Parent/Child View in a Single Table
35. Editing a Field Using a Lookup Table
36. Serving Images from a Database
37. Detecting Concurrency Conflicts

## **UNIT 8 Caching and Asynchronous Pages**

1. Understanding ASPNET Caching
2. Output Caching
3. Declarative Output Caching
4. Caching and the Query String
5. Caching with Specific Query String Parameters
6. Custom Caching Control
7. Caching with the HttpCachePolicy Class
8. Post-Cache Substitution and Fragment Caching
9. Cache Profiles
10. Cache Configuration
11. Data Caching
12. Adding Items to the Cache

13. A Simple Cache Test
14. Cache Priorities
15. Caching with the Data Source Controls
16. Cache Dependencies
17. File and Cache Item Dependencies
18. Aggregate Dependencies
19. The Item Removed Callback
20. Understanding SQL Cache Notifications
21. Cache Notifications in SQL Server 2000 and SQL Server 7
22. Cache Notifications in SQL Server 2005 and SQL Server 2008
23. Custom Cache Dependencies
24. A Basic Custom Cache Dependency
25. A Custom Cache Dependency Using Message Queues
26. Asynchronous Pages
27. Creating an Asynchronous Page
28. Querying Data in an Asynchronous Page
29. Handling Errors
30. Using Caching with Asynchronous Tasks
31. Multiple Asynchronous Tasks and Timeouts

## **UNIT 9 User Controls**

1. User Control Basics
2. Creating a Simple User Control
3. Converting a Page to a User Control
4. Adding Code to a User Control
5. Handling Events
6. Adding Properties
7. Using Custom Objects
8. Adding Events
9. Exposing the Inner Web Control
10. Dynamically Loading User Controls
11. Portal Frameworks
12. Partial Page Caching
13. VaryByControl
14. Sharing Cached Controls
15. Summary

## **UNIT 10 CS**

1. Inline, Embedded & External Styles
2. Selectors
3. Conflict Resolution between Styles
4. Typography
5. Layout Design
6. Positioning

7. Working with Colors and Images
8. Formatting Links
9. CSS best practices

## **UNIT 11 HTML (Hyper Text Markup Language)**

1. HTML & XHTML Introduction
2. Font Markup Elements
3. Phrase Markup Elements
4. Type Essentials
5. Block-Level and Inline Tags
6. Linking
7. Tables
8. Frames
9. Creating HTML Forms

## **UNIT 11 Themes and Master Pages**

1. Cascading Style Sheets
2. Creating a Stylesheet
3. Applying Stylesheet Rules
4. Themes
5. Theme Folders and Skins
6. Applying a Simple Theme
7. Handling Theme Conflicts
8. Creating Multiple Skins for the Same Control
9. Skins with Templates and Images
10. Using CSS in a Theme
11. Applying Themes Through a Configuration File
12. Applying Themes Dynamically
13. Standardizing Website Layout
14. Master Page Basics
15. A Simple Master Page
16. A Simple Content Page
17. Default Content
18. Master Pages with Tables and CSS Layout
19. Master Pages and Relative Paths
20. Applying Master Pages Through a Configuration File
21. Advanced Master Pages
22. Interacting with the Master Page Class
23. Dynamically Setting a Master Page
24. Nesting Master Pages

## **UNIT 12 Website Navigation**

1. Pages with Multiple Views

2. The MultiView Control
3. The Wizard Control
4. Site Maps
5. Defining a Site Map
6. Binding to a Site Map
7. Breadcrumbs
8. Showing a Portion of the Site Map
9. The Site Map Objects
10. Adding Custom Site Map Information
11. Creating a Custom SiteMapProvider
12. URL Mapping
13. Security Trimming
14. The TreeView Control
15. The TreeNode
16. Populating Nodes on Demand
17. TreeView Styles
18. The Menu Control
19. Menu Styles
20. Menu Templates

### **UNIT 13 Website Deployment**

1. Internet Information Services (IIS)
2. IIS Websites and Virtual Directories
3. IIS Management Console and IIS Configuration
4. Mapping Websites, Virtual Directories, and Files to URLs
5. Diving into the Architecture of IIS
6. Installing IIS
7. Managing Websites
8. Managing Virtual Directories and Websites with IIS 5x and IIS 60
9. Managing Application Pools in IIS 60
10. Managing Virtual Directories and Websites with IIS
11. Managing Application Pools in IIS
12. Deploying Your ASPNET Applications
13. Verifying the ASPNET Installation on IIS 5x and IIS 60
14. ASPNET Side-By-Side Execution on IIS 5x and IIS 60
15. ASPNET Side-By-Side Execution on IIS
16. Configuring HTTP Runtime Settings when Deploying on IIS 5x
17. Compilation Models in ASPNET
18. Deploying with Visual Studio
19. Visual Studio 2005 Web Deployment Projects
20. The VirtualPathProvider in ASPNET
21. Health Monitoring in ASPNET
22. Understanding the Basic Structure
23. Events and Providers
24. Summary



## **UNIT 14 The ASPNET Security Model**

1. What It Means to Create Secure Software
2. Understanding Potential Threats
3. Secure Coding Guidelines
4. Understanding Gatekeepers
5. Understanding the Levels of Security
6. Authentication
7. Authorization
8. Confidentiality and Integrity
9. Pulling It All Together
10. Internet Information Services Security
11. Authentication and Authorization on IIS 5x and IIS 60
12. Security Configuration on IIS
13. Understanding Secure Sockets Layer
14. ASPNET Security Architecture
15. Authentication
16. Authorization
17. The Security Context
18. Membership and Roles APIs

## **UNIT 15 Forms Authentication**

1. Introducing Forms Authentication
2. Why Use Forms Authentication?
3. Why Would You Not Use Forms Authentication?
4. Why Not Implement Cookie Authentication Yourself?
5. The Forms Authentication Classes
6. Implementing Forms Authentication
7. Configuring Forms Authentication
8. Denying Access to Anonymous Users
9. Creating a Custom Login Page
10. Custom Credentials Store
11. Persistent Cookies in Forms Authentication
12. IIS and Forms Authentication

## **UNIT 16 Membership**

1. Introducing the ASPNET Membership API
2. Using the Membership API
3. Configuring Forms Authentication
4. Creating the Data Store
5. Configuring Connection String and Membership Provider
6. Creating and Authenticating Users
7. Using the Security Controls

8. The Login Control
9. The LoginStatus Control
10. The LoginView Control
11. The PasswordRecovery Control
12. The ChangePassword Control
13. The CreateUserWizard Control
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15. Configuring Membership in IIS
16. Configuring Providers and Users
17. Using the Membership API with Other Applications
18. Using the Membership Class
19. Retrieving Users from the Store
20. Updating Users in the Store
21. Creating and Deleting Users
22. Validating Users
23. Using Membership in Windows Forms

#### **UNIT 17 Windows Authentication**

1. Introducing Windows Authentication
2. Why Use Windows Authentication?
3. Why Would You Not Use Windows Authentication?
4. Mechanisms for Windows Authentication
5. Implementing Windows Authentication
6. Configuring IIS 5x or IIS 60
7. Configuring IIS
8. Configuring ASPNET
9. Denying Access to Anonymous Users
10. Accessing Windows User Information
11. Impersonation
12. Impersonation in Windows 2000
13. Impersonation on Windows XP
14. Impersonation and Delegation on Windows Server 2003
15. Impersonation on Windows Vista 9
16. Impersonation and Delegation on Windows Server 2008
17. Configured Impersonation
18. Programmatic Impersonation

#### **UNIT 18 Authorization and Roles**

1. URL Authorization
2. Authorization Rules
3. File Authorization
4. Authorization Checks in Code
5. Using the IsInRole() Method
6. Using the PrincipalPermission Class

7. Using the Roles API for Role-Based Authorization
8. Using the LoginView Control with Roles
9. Accessing Roles Programmatically
10. Using the Roles API with Windows Authentication
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12. Protecting Non-ASPNET Resources in IIS 5 and 6
13. Adding a File Type Mapping
14. Writing a Custom HTTP Handler
15. Authorization and Roles in IIS
16. Authorization with ASPNET Roles in IIS
17. Managing ASPNET Roles with IIS

## **UNIT 19 ASPNET AJAX**

1. Introducing ASPNET AJAX
2. ASPNET AJAX on the Client: The Script Libraries
3. ASPNET AJAX on the Server: The ScriptManager
4. Server Callbacks
5. Web Services in ASPNET AJAX
6. The Web Service Proxy
7. Placing a Web Method in a Page
8. ASPNET AJAX Application Services
9. ASPNET AJAX Server Controls
10. Partial Rendering with the UpdatePanel
11. Timed Refreshes with the Timer
12. Time-Consuming Updates with UpdateProgress
13. Deeper into the Client Libraries
14. Understanding the Client Model
15. Object-Oriented Programming in JavaScript
16. The Web-Page Framework
17. Control Extenders
18. Installing the ASPNET AJAX Control Toolkit
19. The AutoCompleteExtender
20. The ASPNET AJAX Control Toolkit

## **UNIT 20 Q/A Session and If anything student want to know will be discussed here**