



ASP.NET using VB.NET (BDT4240) 5 days

Course Description

This five-day course provides a comprehensive and practical hands-on introduction to developing Web applications using ASP.NET 3.5 and Visual Basic. It includes an introduction to using ASP.NET AJAX to build rich client applications. ASP.NET is introduced as a Web programming platform that overcomes a number of limitations of ASP. Its architecture is outlined, including the role of compilation, the Page class and code-behind. Web Forms are introduced, including server controls, viewstate, life cycle, and the event model. Request/response HTTP programming using ASP.NET is covered.

Learning Objectives

- Gain a thorough understanding of the philosophy and architecture of Web applications using ASP.NET
- Acquire a working knowledge of Web application development using Web Forms and Visual Studio 2008
- Optimize an ASP.NET Web application using configuration, security, and caching
- Access databases using ADO.NET and LINQ
- Use new features in ASP.NET 2.0 and 3.5
- Implement rich client applications using ASP.NET AJAX
- Customize Web applications through the use of HTTP handlers and modules

Audience: This course is designed for experienced application developers and architects responsible for Web applications in a Microsoft environment.

Prerequisites: The student should have a good working knowledge of Visual Basic and the .NET Framework. Knowledge of JavaScript recommended for the last chapter.



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Course Outline

1. Introduction to ASP.NET
 - A. From ASP to ASP.NET
 - B. Web Forms
 - C. Web Services
 - D. ASP.NET Features
 - E. ASP.NET 2.0
 - F. ASP.NET 3.5

2. Web Forms Architecture
 - A. Page Class
 - B. Web Forms Life Cycle
 - C. Web Forms Event Model
 - D. Code-Behind

3. ASP.NET and HTTP
 - A. Request/Response Programming
 - B. HttpRequest Class
 - C. HTTP Collections
 - D. HttpResponse Class
 - E. Redirection
 - F. HttpUtility Class

4. Web Applications Using Visual Studio
 - A. Using Visual Web Developer
 - B. Visual Studio Forms Designer
 - C. Using Components
 - D. Shadow Copying
 - E. Using the Global.asax File
 - F. Data Binding

5. State Management and Web Applications
 - A. Session State
 - B. Application State
 - C. Multithreading Issues
 - D. Cookies



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6. Server Controls
 - A. HTML Server Controls
 - B. Web Forms Server Controls
 - C. Rich Controls
 - D. Validation Controls
 - E. User Controls

7. Caching in ASP.NET
 - A. What Is Caching
 - B. Page-Level Caching
 - C. Page Fragment Caching
 - D. Optimizing Your ASP.NET Application
 - E. Application Caching

8. ASP.NET Configuration and Security Fundamentals
 - A. Configuration Overview
 - B. Authentication and Authorization
 - C. Forms Authentication
 - D. Windows Authentication
 - E. Security and ASP.NET

9. Debugging, Diagnostics and Error Handling
 - A. Debugging
 - B. Application Tracing
 - C. Page Tracing
 - D. Error Handling

10. More Server Controls
 - A. New ASP.NET 2.0 Controls
 - B. Menus
 - C. Master Pages

11. ADO.NET and LINQ
 - A. ADO.NET Overview
 - B. .NET Data Providers
 - C. Connections
 - D. Commands
 - E. DataReaders and Connected Access
 - F. Data Sets and Disconnected Access
 - G. Language Integrated Query



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12. Data Access in ASP.NET 3.5

- A. Data Source Controls
- B. Connection String Storage
- C. GridView
- D. DetailsView
- E. FormView
- F. Object Data Sources
- G. ListView
- H. DataPager
- I. LinqDataSourece

13. Personalization and Security

- A. Configuration Overview
- B. Themes
- C. Skins
- D. Security in ASP.NET 2.0
- E. Membership and Roles
- F. Login Controls
- G. User Profiles

14. Introduction to ASP.NET AJAX

- A. Rich Client Applications
- B. AJAX
- C. ScriptManager
- D. UpdatePanel
- E. AJAX Client Library
- F. Remote Method Calls
- G. AJAX Control Toolkit

15. HTTP Pipeline

- A. Pipeline Architecture
- B. Context
- C. Applications
- D. Handlers
- E. Modules

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