

ASP.NET using C#

Course No.

9416

Description

This course provides a practical, hands-on coverage of developing Web applications using ASP.NET and C# and introduces Web services.

ASP.NET is introduced as a unified Web development platform that provides the services necessary for developers to build enterprise-class Web applications. The architecture of Web Forms is covered, including the life cycle and event model. The code behind programming model is introduced, and Visual Studio .NET is used to greatly simplify the development of ASP.NET Web applications. Request/response programming using ASP.NET is covered. The tracing, navigation, and utility features of ASP.NET are introduced. This aspect of ASP.NET is similar to ASP and is important to understand as part of the overall Web application model. ASP.NET Web applications are covered, including issues of application and session state and the use of cookies. Server controls represent an important innovation in ASP.NET and are covered in detail. User controls are introduced. The use of ASP.NET and ADO.NET for accessing databases is covered. Configuration and security are covered. There is an introduction to caching in ASP.NET, which provides an effective mechanism for optimizing the performance of your ASP.NET application. Web services are introduced.

Numerous programming examples and exercises are included, including a substantial case study. The student will receive a comprehensive set of notes and all the programming examples.

Prerequisites

The student should be an experienced application developer or architect with a working knowledge of C#. Previous experience with ASP is desirable but not essential. For the material on database access, previous exposure to ADO.NET would be helpful.

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 .NET
- Access databases using ASP.NET and ADO.NET
- Optimize an ASP.NET Web application using configuration, security, and caching
- Implement Web services using ASP.NET

Duration

3 days

Course Contents

1. Introduction to ASP.NET

- What Is ASP.NET?
- Web Forms
- Web Services
- ASP.NET Features

2. Web Forms Architecture

- Page Class
- Web Forms Life Cycle
- Web Forms Event Model
- Code Behind

3. ASP.NET and HTTP

- Request/Response Programming
- HttpRequest Class
- HTTP Collections
- HttpResponse Class
- Redirection
- HttpUtility Class

4. Web Applications Using Visual Studio

- ASP.NET Web Application Projects
- Visual Studio Forms Designer
- Deploying Web Applications
- Using the Global.asax File
- Data Binding

5. State Management and Web Applications

- Session State
- Application State
- Acme Travel Web Site

6. Server Controls and Data Binding

- HTML Server Controls
- Web Forms Server Controls
- Rich Controls
- Validation Controls
- Data Binding

7. ASP.NET Configuration and Security

- Configuration Overview
- Authentication and Authorization
- Security and ASP.NET

8. Caching in ASP.NET

- Page Level Caching
- Data Caching
- Optimizing Your ASP.NET Application
- Application Caching
- HTTP Caching

9. Introduction to Web Services

- Web Services and Remoting
- XML, SOAP, WSDL
- Web Services Architecture
- Proxies
- Interoperability of Web Services
- Developing Web Services Using Visual Studio .NET

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