

Course 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. Server controls represent an important innovation in ASP.NET and are covered in detail. Data binding is introduced. 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.

Who Should Attend:

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 binding to databases, previous exposure to ADO.NET would be helpful.

Benefits of Attendance: Upon completion of this course, students will be able to:

- 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.
- Optimize an ASP.NET Web application using configuration, security and caching.
- Implement Web Services using ASP.NET.

Course Outline:**Introduction To ASP.NET**

What is ASP.NET?
Web Forms
Web Services
ASP.NET Features

Web Forms Architecture

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

ASP.NET And HTTP

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

Web Applications Using Visual Studio

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

State Management And Web Application

Session State
Application State
Acme Travel Web Site

Server Controls And Data Binding

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

ASP.NET Configuration And Security

Configuration Overview
Authentication and Authorization
Security and ASP.NET

Caching In ASP.NET

Page Level Caching
Data Caching
Optimizing your ASP.NET Application
Application Caching
HTTP Caching

Introduction To Web Services

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