



Developing XML Web Services Using Microsoft ASP.NET

(Course Code: 2524)

Duration: 3 Days

Introduction:

The goal of this course is to provide students with the knowledge and skills that are required to develop XML Web services-based solutions to solve common problems in the distributed application domain. The course focuses on using Microsoft® Visual Studio® .NET, Microsoft ASP.NET, and Universal Description, Discovery, and Integration (UDDI) to enable students to build, deploy, locate, and consume Extensible Markup Language (XML) Web services.

Who Should Attend:

This course is intended for experienced software developers who have previously built component-based applications.

At Course Completion:

At the end of the course, students will be able to :-

- § Explain how XML Web services emerged as a solution to the problems with traditional approaches to designing distributed applications.
- § Describe the architecture of an XML Web services-based solution.
- § Describe the underlying technologies of XML Web services and explain how to use the Microsoft .NET Framework to implement XML Web services by using these technologies.
- § Implement an XML Web service consumer by using Microsoft Visual Studio .NET.
- § Implement a simple XML Web service by using Visual Studio .NET.
- § Publish and deploy an XML Web service.
- § Secure an XML Web service.
- § Implement caching in an XML Web service.
- § Evaluate the trade-offs and issues that are involved in designing a real-world XML Web service.
- § Implement nonstandard XML Web services such as Hypertext Markup Language (HTML) screen scraping and aggregating XML Web services.

Microsoft Certified Professional Exams:

There is no Microsoft Certified Professional exam associated with this course.

Prerequisites:

Before attending this course, students must have:

- § An understanding of how to read and write XML documents.
- § Experimented with simple C# applications.
- § Developed distributed applications by using Microsoft Visual Basic®, Java, or C++.

DAY 1

Module 1: The Need for XML Web Services

- § Evolution of Distributed Applications
- § Problems with Traditional Distributed Applications
- § Introducing XML Web Services
- § The Web Technology Stack and .NET
- § The .NET Alternatives to XML Web Services
- § Common XML Web Service Scenarios

Module 2: XML Web Service Architectures

- § Service-Oriented Architecture
- § XML Web Service Architectures and Service-Oriented Architecture
- § Roles in an XML Web Services Architecture
- § The XML Web Services Programming Model

Module 3: The Underlying Technologies of XML Web Services

- § HTTP Fundamentals
- § Using HTTP with the .NET Framework
- § XML Essentials
- § XML Serialization in the .NET Framework
- § SOAP Fundamentals
- § Using SOAP with the .NET Framework

DAY 2

Module 4 : Consuming XML Web Services

- § WSDL Documents
- § XML Web Service Discovery
- § XML Web Service Proxies
- § Implementing an XML Web Service Consumer Using Visual Studio .NET

Module 5: Implementing a Simple XML Web Service

- § Creating an XML Web Service Project
- § Implementing XML Web Service Methods
- § Managing State in an ASP.NET XML Web Service
- § Debugging XML Web Services

Module 6: Publishing and Deploying XML Web Services

- § Overview of UDDI
- § Publishing an XML Web Service
- § Finding an XML Web Service
- § Publishing an XML Web Service on an Intranet
- § Configuring an XML Web Service

DAY 3

Module 7: Securing XML Web Services

- § Overview of Security
- § Built-In Authentication
- § Custom Authentication: SOAP Headers
- § Authorization: Role-Based Security
- § Authorization: Code Access Security
- § Encryption

Module 8: Designing XML Web Services

- § Datatype Constraints
- § Performance
- § Reliability
- § Versioning
- § HTML Screen Scraping XML Web Services
- § Aggregating XML Web Services

Module 9: Global XML Web Services Architecture

- § Introduction to GXA
- § Routing and Referral
- § Security and Licensing