
Developing XML Web Services Using Microsoft ASP.NET

Duration: 4 Days **Course Code: M2524**

Overview:

This three-day instructor led course provides delegates 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.

Target Audience:

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

Objectives:

- 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.
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Prerequisites:

Delegates are required to meet the following prerequisites:

- 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++.

Testing and Certification:

This course will assist delegates preparing for the following exams:

- Developing XML Web Services and Server Components with Microsoft Visual Basic .NET and the Microsoft .NET Framework (Test No: 70-310)
 - Developing XML Web Services and Server Components with Microsoft Visual C# and Microsoft and the Microsoft .NET Framework (Test No: 70-320)
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Content:

- The Need for XML Web Services
- Describing the evolution of distributed applications.
- Identifying the problems with traditional distributed application architectures and technologies.
- Describing Web services and briefly explaining how they address the design problems in traditional distributed applications.
- XML Web Service Architectures
- Identifying how Web service architectures are a type of service-oriented architecture.
- Describing the elements of a Web service architecture and explaining their roles.
- Describing the Web service programming model.
- The Underlying Technologies of XML Web Services
- Describing the structures of an HTTP request and response.
- Issuing HTTP POST and GET requests and processing the responses by using the .NET Framework.
- Issuing a SOAP request and processing the response by using the .NET Framework.
- Consuming XML Web Services
- Explaining the structure of a WSDL.
- Explaining the Web services discovery process.
- Locating service contracts by using Disco.exe.
- Generating Web service proxies by using Wsdl.exe.
- Implementing a Simple XML Web Service
- Creating a Web service project.
- Implementing Web service methods.
- Managing state in an ASP.NET-based Web service.
- Debugging Web services.
- Publishing and Deploying XML Web Services
- Explaining the role of UDDI in Web services.
- Searching a UDDI registry to locate Web services by using the UDDI SDK.
- Explaining the various options for publishing a Web service on an intranet.
- Explaining some of the options for modifying the default configuration of a Web service.
- Securing XML Web Services
- Identifying the differences between authentication and authorization.
- Using SOAP headers for authentication in a Web service.
- Using role-based security and code access security for authorization in a Web service.
- Encrypting the communication between a Web service consumer and a Web service.
- Designing XML Web Services
- Identifying the restrictions that are imposed on data types by the various Web services protocols.
- Explaining how the use of Application and Session state can affect the performance and scaling of Web services.
- Identifying the components of a Web service that can be versioned.
- Explaining how to implement a virtual Web service by using screen scraping.
- Global XML Web Services Architecture
- Describe limitations inherent to the specifications with which today's Web services are built.
- Describe the design principles and specifications of Global XML Web services Architecture (GXA).
- Design Web services that anticipate and can leverage the features that GXA will offer when released

Further Information:

For More information, or to book your course, please call us on +20 2 2290 2163/2148

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