

XML INTRODUCTION

Course number : 107

Overview

Extensible Markup Language (XML) has become the default format for systems, and can offer your organization an effective way to conduct business-to-business transactions and handle data interchange. In this XML introduction training course, you gain comprehensive knowledge and hands-on experience using XML and related technologies — including XSL, schemas, XPath, XQuery and DOM.

What you'll learn

- Leverage the power of Extensible Markup Language (XML) and related technologies
- Modify and search XML documents using the DOM and XQuery
- Transform XML documents and apply presentation styles with XSL
- Ensure XML data conforms to design requirements using schemas
- Implement strategies to secure XML data interchange

Who should attend

Pre-requis

- A working knowledge of computers and some experience using Windows
- Knowledge of programming and web development

Outline

Introduction and Overview

- Surveying the XML landscape
- The business benefits of XML
- Exchanging data with XML: RSS, Ajax, Web Services

Designing and Implementing XML Documents

XML document structure

- The document root and prologue
- Elements
- Attributes
- Entities
- Namespaces
- Differentiating well-formed and valid documents
- Exploiting popular XML editing tools

XML design and data mapping

- Elements vs. attributes
- Design techniques
- Designing an XML document from a requirements document

Distinguishing dialects with namespaces

- Adhering to proper naming conventions
- Eliminating document ambiguity with namespaces
- Defining namespaces using Uniform Resource Identifiers (URI)

[Generating and Updating XML Documents](#)

The XML processing models

- Document Object Model
- Event-driven processing
- Navigating a document with XPath
- Querying a document with XQuery
- Event-driven vs. tree-based models

Communicating with databases using XML

- Database storage options
- Retrieving database results as XML
- Reformatting database results with XQuery
- Storing XML with a native XML data type

Processing information with the DOM

- Navigating XML documents
- Extracting and modifying data
- Building XML documents from scratch
- Creating element and text nodes

[Validating XML Data](#)

Constraining XML structure and content

- Defining an XML structure with Document Type Definitions (DTDs)
- Building XML schemas to validate XML structure/data

Validation with XML schemas

- XML schema syntax and components
- Specifying valid elements and attributes
- Encapsulating business rules in XML schemas
- Leveraging schema datatypes

Extending schemas

- Importing existing schemas
- Leveraging modular schemas
- Defining custom user-defined types

[Transforming Documents with Extensible Style Language \(XSL\)](#)

The power of XML transformation

- Converting XML documents to adhere to schemas
- Processing documents with pattern matching
- Specifying output format with templates
- XSL best practices

Applying style to data

- Formatting XML data for presentation
- Styling XML for display as HTML and PDF

Searching and filtering with XPath

- Formatting and sequencing XML data
- Sorting, grouping and filtering output

[Application Security and Integration](#)

Securing XML applications

- Implementing transport security

- Encrypting XML data
- Enabling SOAP security with WS-Security

Integrating applications with XML

- Communicating with XML messaging
- Investigating Web Services, SOAP and WSDL
- Enabling an Ajax-powered web page with XML

Schedule

| Location | Dates | Status | |
|-----------------|----------------------------------------------------|---------------|---------------------------------------|
| Cotonou | Feb 01, 2018 - Feb 07, 2018 08:00 AM - 05:00 PM | Available | Register Now >> |
| Abidjan | Mar 01, 2018 - Mar 31, 2018 08:00 AM - 05:00 PM | Not available | Register Now >> |

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