

# **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	<a href="#">Register Now &gt;&gt;</a>
Abidjan	Mar 01, 2018 - Mar 31, 2018 08:00 AM - 05:00 PM	Not available	<a href="#">Register Now &gt;&gt;</a>

## Tuition

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**STANDARD      \$3895**

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