Xml Introduction

Course: **00008**

Filter: **Beginner**

Duration: **2 days**

Category:: **Programming**

Price: **3000,00 €**

About Course

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

Pre-requisites

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

Curriculum

Module 1: Introduction and Overview

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

Module 2: Designing and Implementing XML Documents

- The document root and prologue
- Elements
- Attributes
- Entities
- Namespaces
- Differentiating well-formed and valid documents
- Exploiting popular XML editing tools
- Elements vs. attributes
- Design techniques
- Designing an XML document from a requirements document
- Adhering to proper naming conventions
- Eliminating document ambiguity with namespaces
- Defining namespaces using Uniform Resource Identifiers (URI)

Module 3: Generating and Updating XML Documents

- Document Object Model
- Event-driven processing
- Navigating a document with XPath
- Querying a document with XQuery
- Event-driven vs. tree-based models
- Database storage options
- Retrieving database results as XML
- Reformatting database results with XQuery
- Storing XML with a native XML data type
- Navigating XML documents
- Extracting and modifying data
- Building XML documents from scratch
- Creating element and text nodes

Module 4: Validating XML Data

- Defining an XML structure with Document Type Definitions (DTDs)
- Building XML schemas to validate XML structure/data
- XML schema syntax and components
- Specifying valid elements and attributes
- Encapsulating business rules in XML schemas
- Leveraging schema datatypes
- Importing existing schemas
- Leveraging modular schemas
- Defining custom user-defined types

Module 5: Transforming Documents with Extensible Style Language (XSL)

- Converting XML documents to adhere to schemas
- Processing documents with pattern matching
- Specifying output format with templates
- XSL best practices
- Formatting XML data for presentation
- Styling XML for display as HTML and PDF
- Formatting and sequencing XML data
- Sorting, grouping and filtering output

Module 6: Application Security and Integration

- Implementing transport security
- Encrypting XML data
- Enabling SOAP security with WS-Security
- Communicating with XML messaging
- Investigating Web Services, SOAP and WSDL
- Enabling an Ajax-powered web page with XML