Course Outline | XML Introduction - Intermediate

2 day(s)

Overview

Programming systems these days are working on many different machines and using many different technologies and programming languages. XML is a modern effort employed to allow communication between all these different systems.

XML Introduction/Intermediate training class provides a comprehensive introduction to Extensible Mark-up Language (XML). XML is a new technology and is a powerful language used to encapsulate data into XML files. XML is particularly useful for integrating and passing data between business-to-business applications or between disparate systems.

Prerequisites

There are no prerequisites for this course. Previous use of HTML would be an advantage but is not essential.

Course Outline

XML Basics

- What is XML?
- XML Benefits
- XML Documents
- The Prolog
- Elements
- Attributes
- CDATA
- Whitespace
- XML Syntax Rules
- Special Characters
- Creating a Simple XML File

Quick Introduction to XHTML

- XHTML vs HTML
- The DOCTYPE Declaration
- XHTML Strict
- XHTML Transitional
- XHTML Frameset
- The Document Element
- A Sample XHTML Document

DTDs

- Well-formed vs Valid
- The Purpose of DTDs
- Creating DTDs
- The Document Element
- Other Elements
- Choice of Elements
- Empty Elements
- Mixed Content
- Location of Modifier
- Using Parentheses for Complex Declarations
- Declaring Attributes
- Validating an XML Document with a DTD

XML Schema

- The Purpose of XML Schema

Systematix

- The Power of XML Schema
- A Simple XML Schema
- Validating an XML Instance Document

Simple-Type Elements

- 19 Primitive Data Types
- Built-in Derived Data Types
- Defining a Simple-type Element
- User-derived Simple Types
- Applying Facets
- Controlling Length
- Specifying Patterns
- Working with Numbers
- Enumerations
- Whitespace-handling
- Specifying Element Type Locally
- Declaring Global Simple-Type Elements
- Default Values
- Fixed Values

Complex-Type Elements

- Content Models
- xs:sequence
- xs:all
- xs:choice
- Complex Model Groups
- Occurrence Constraints
- Declaring Global Complex-Type Elements
- Mixed Content
- Defining Complex Types Globally

Attributes

- Empty Elements
- Adding Attributes to Elements with Complex Content
- Adding Attributes to Elements with Simple Content
- Restricting Attribute Values
- Default and Fixed Values
- Requiring Attributes