

Developing XML-Based Web Applications

Course length: 3 days

Course Description

Course Objective: You will create XML documents and use related technologies to format XML data. You will also use XML to share data on the web and retrieve information from XML documents to then display it on web pages.

Target Student: This course is intended for entry-level XML developers who need to learn how to create XML-based web applications.

Prerequisites: An introductory course in a Windows operating system, or equivalent skills and knowledge, is required. Students can take the JavaScript Programming (Fourth Edition) course, or possess the equivalent skills and knowledge. We also recommend that students have experience with a markup language such as HTML (Web Design with XHTML, HTML and CSS: Level 1).

Course Objectives

Upon successful completion of this course, students will be able to:

- Create a basic XML document.
- Validate an XML document.
- Create a schema document.
- Transform XML using XSL transformation.
- Create a basic XSLT template.
- Access XML documents.
- Work with data islands and SVG output.
- Interact with the web server using the XMLHttpRequest object.
- Process client requests and send server responses using PHP.
- Use XML to exchange information between applications over the web.

Course Content

Lesson 1: Creating an XML Document

Topic 1A: Introduction to XML

Topic 1B: Create XML Elements

Topic 1C: Create Additional XML Components

Topic 1D: Implement Namespaces

Topic 1E: Implement XInclude

Lesson 2: Validating an XML Document Using a DTD

Topic 2A: Create a DTD

Topic 2B: Validate XML with a DTD

Lesson 3: Validating an XML Document Using a Schema

Topic 3A: Create Basic Schema Elements

Topic 3B: Add Attribute Elements to a Schema Document

Topic 3C: Create Attribute Groups

Topic 3D: Maintain Unique Values in XML Elements

Topic 3E: Restrict Values of XML Elements with Facets



Lesson 4: Transforming XML Using XSLT

Topic 4A: Familiarize Yourself with the eXtensible Stylesheet Language (XSL)

Topic 4B: Display XML Documents Using Stylesheets

Lesson 5: Creating Basic XSLT Templates

Topic 5A: Create an XSLT Stylesheet

Topic 5B: Work with Multiple XSLT Templates

Topic 5C: Use XSLT Elements to Add New Data to an XSLT Output Tree

Topic 5D: Use Conditional Elements

Lesson 6: Accessing XML Documents

Topic 6A: Access an XML Document Using DOM

Topic 6B: Transform XML Using XSL Programmatically

Lesson 7: Working with Data Islands and SVG Output

Topic 7A: Transform an XML Data Island with XSLT

Topic 7B: Convert XML Documents into Scalable Vector Graphics

Lesson 8: Interacting with the Web Server Using AJAX

Topic 8A: Create an XMLHttpRequest Object

Topic 8B: Interact with the Web Server Using the XMLHttpRequest Object

Lesson 9: Working with PHP, AJAX, and MySQL

Topic 9A: Introduction to PHP

Topic 9B: Process Client Requests

Topic 9C: Manage Data Using a Database

Lesson 10: Working with the XML Web Service

Topic 10A: Introduction to Web Services

Topic 10B: Create Web Services Using SOAP

