

XML Fundamentals Ed 1.1

Duration: 2 Days

What you will learn

This XML Fundamentals training introduces you to the basics of XML. In this 2 day hands on course, you will learn the central XML technologies, including writing well formed and valid XML, creating Document Type Definitions (DTDs) and XML schema documents and using XPath and XQuery.

Learn To:

- Create well-formed and valid XML documents.
- Use XML Namespaces in an XML document to resolve name ambiguities in XML documents.
- Create Document Type Definition and XML schema documents to validate XML documents.
- Use XPath expressions and functions to find and select nodes in XML documents.
- Transform XML documents by using stylesheets and XPath expressions.
- Use Oracle JDeveloper to view, create, edit, and test XML and other XML-related documents.
- Use XQuery to query, generate, and transform XML content.
- Identify the features and benefits of Oracle XML DB

XML schema

This course covers the components of an XML schema, how to create and XML schema document and how to validate XML documents using XML schemas. Validating documents using Document Type Definitions (DTDs) are discussed as well.

Benefits To You

Additionally, you'll be introduced to the support for XML offered in various Oracle products, like the Oracle XML DB and Oracle JDeveloper. Use the XQuery XML query language, which is built on XPath expressions, to query data from both XML files and relational databases. Review how to use XQuery to generate and transform XML content. You'll learn how to use the XML concepts while exploring XML Namespaces that are used to apply uniqueness to elements.

Related Training

Required Prerequisites

Knowledge of SQL

Suggested Prerequisites

Basic experience with writing HTML documents

Familiarity with Oracle JDeveloper

Familiarity with SQL*Plus

Course Objectives

Learn the basics of XML and create well-formed and valid XML documents

Learn about XML namespaces

Create document type definitions (DTDs) to validate XML documents

Create XML schema documents (XSDs) to validate XML documents

Learn to use the XPath language

XPath expressions

and XPath functions to find and select nodes in XML documents

Discover the support for XML offered in various Oracle products such as Oracle JDeveloper and Oracle XML DB

Use JDeveloper to view

create

and edit XML and other XML-related documents

Use JDeveloper to test XPath expressions and to create and execute XQuery files

Use Extensible Stylesheet Language (XSL) Transformations (XSLT) to transform one XML document into another XML document

Use the XQuery XML query language

which is built on XPath expressions

to query

generate

and transform XML content

Learn about the XML features in the Oracle database and explain the architecture of the Oracle XML DB components and the benefits of such components

Describe the Oracle XML DB support for XQuery

Course Topics

Introduction

Course Objectives

Course Goals

Database schemas used in this course

The Purchase Order XML schema purchase_orderxsd used in the XML DB Course

Appendices Used in This Course

Class Account Information

Course Environment

Entering SQL Statements Using

Introducing the XML Document

Extensible Markup Language

Advantages of Using XML

XML Standards

Document Object Model

Oracle XML Support

Using XML in Oracle JDeveloper

Building XML Applications with Oracle Technology

Creating an Application and Project in JDeveloper

Validating XML with a Document Type Definitions (DTDs)

What Is a Document Type Definition?

Why Validate an XML Document?

General DTD Rules

The Contents of a DTD

Referencing the DTD

Element, Attribute, and Entities Declarations

Complete DTD: Example

Validating XML Against a DTD

Modularizing XML with Namespaces

What Is an XML Namespace?

Why Use XML Namespaces

- Declaring XML Namespaces
- XML Namespace prefixes
- Example of XML Namespace Declarations
- Scope of XML Namespace Declarations
- Invoking the ShowXmlNS Tool

Validating XML Documents

- What is an XML Schema?
- The Benefits of XML Schemas
- XML Schema Versus DTD
- Validating an XML Document with an XML Schema Document
- Referencing an XML Schema with the schemaLocation Attribute
- Components of an XML Schema
- Creating an XML Schema Document in JDeveloper
- Creating an XML Document from an XML Schema

Navigating XML Documents by Using XPath

- What Is XML Path Language?
- The XPath Model
- XPath Expressions
- The Location Path Expression
- Location Steps in XPath Expressions
- XPath Axes and Node Test Types
- XPath Functions
- Testing XPath Expressions

Transforming XML by Using XSL Transformations

- What Is XSL?
- XSL Transformations
- The XSLT Stylesheet
- Using an XSLT Stylesheet with an XML Document
- Viewing the Transformed Document
- Creating and Applying Template Rules
- Conditional Processing with `<xsl:if>` and `<xsl:choose>`
- Using Modes

Working With XQuery

- What is XQuery?
- Applications of XQuery
- XQuery Terminology and Data Model
- Conversion of XML into a Query Data Model
- XQuery Syntax Rules
- XQuery Support in JDeveloper
- XQuery Expressions, Functions, and Operators
- Using FLWOR Expressions

Introduction to Oracle XML DB

- What Is Oracle XML DB?
- Oracle XML DB Benefits
- When to Use Oracle XML DB?
- How Is Oracle XML DB Implemented?
- Oracle XML DB: Features

