Course Outline | XQuery for Developers

2 day(s)

Overview

XQuery provides the means to extract and manipulate data from XML documents or any data source that can be viewed as XML, such as relational databases or office documents.

XQuery uses XPath expression syntax to address specific parts of an XML document. It supplements this with a SQL-like "FLWOR expression" for performing joins. A FLWOR expression is constructed from the five clauses after which it is named: FOR, LET, WHERE, ORDER BY, RETURN.

The language also provides syntax allowing new XML documents to be constructed. Where the element and attribute names are known in advance, an XML-like syntax can be used; in other cases, expressions referred to as dynamic node constructors are available. All these constructs are defined as expressions within the language, and can be arbitrarily nested.

The language is based on a tree-structured model of the information content of an XML document, containing seven kinds of node: document nodes, elements, attributes, text nodes, comments, processing instructions, and namespaces.

Prerequisites

Completion of XML Introduction/Intermediate training course or equivalent knowledge.

Course Outline

XQuery Quick Introduction

- What is XQuery For?
- Playing with XQuery
- Literals and Comments in XQuery
- Your First XQuery
- Accessing XML Documents with XQuery

XQuery FLWOR Expressions

- An Introduction to the XQuery FLWOR
- Expression
- Simple FLWOR Expressions
- The Principal Parts of an XQuery FLWOR
- Expression
- F is for FOR
- L is for LET
- Using 'Variables' in XQuery
- W is for WHERE
- O is for ORDER BY
- R is for RETURN
- Other parts of the XQuery FLWOR
- Expression
- Declaring XQuery types
- XQuery Position variables
- Multiple assignments
- What about Grouping in XQuery?
- XQuery FLWOR: A Summary

Generating XML Output with XQuery

- Show Me the Database!

Creating Nodes XQuery

- Eliminating Duplicate Subtrees with
- distinct-values() and FLWOR Expressions
- Inverting Hierarchies
- Quantifiers
- Conditional Expressions

XQuery Operators

- Arithmetic Operators
- Comparison Operators
- Sequence Operators
- XQuery Built-in Functions

Defining your own Functions in XQuery

- A simple XQuery function
- The Anatomy of an XQuery Function
- Declaration
- The XQuery Function Name
- XQuery Function Arguments
- The result type
- The XQuery Function Body
- Documentation

Variable Definitions in XQuery Library Modules in XQuery

- Creating a Database Connection
- Supported Databases
- The Connection Settings Dialog Box
- Using the Server URL Field
- How to Create a Database Connection
- How to Edit a Database Connection

Creating a collection() Statement

- collection() Function Syntax
- What Happens When You Create a
- collection() Statement?
- Creating Multiple Connections
- How to Create a collection() Statement