

XQuery

Audience Course XQuery

The course **XQuery** is designed for developers who wish to apply XQuery in practice for the selection of XML data.

Prerequisites Course XQuery

To participate in this course basic knowledge of <u>XML</u> and <u>HTML</u> syntax is required. Experience with programming and Structured Query Language (SQL) is beneficial for a good understanding.

Realization Training XQuery

The theory is discussed on the basis of presentation slides. Demos are used to clarify the theory. The theory is interspersed with hands-on exercises. Usage is made of modern XQuery tools and the course material is in English. The course times are from 9.30 up and to 16.30.

Certification XQuery

After successful completion of the course, participants receive an official XQuery certificate.



Content Course XQuery

The XML language XQuery is central to the XQuery course. The participants learn how XQuery can be used to select and transform XML data.

XQuery Intro

Attention is paid to the syntax of XQuery, the XQuery specification and the parts of XQuery.

XML Vocabularies

Also the relationships of XQuery with other XML vocabularies such as XPath, XSLT and XML Schema are discussed.

XQuery Data Types and Expressions

Furthermore the data types, built-in functions of XQuery and the different XQuery expressions are discussed.

Flower Expression

The so called flower expressions which are characteristic for XQuery are treated in detail.

Joins

Finally attention is paid to some more advanced applications of XQuery like joins, the use of XQuery in combination with other technologies and for the accessing of relational data.



Modules Course XQuery

Module 1 : XQuery Introduction	Module 2 : XQuery Syntax	Module 3 : XPath Node Selection
What is XQuery?	Basic Syntax Rules	XPath Expressions
XQuery Motivation	XQuery Functions	XPath Data Types
XML versus Relational Model	Structure of an XQuery Module	XPath Context
Requirements Query Language	XQuery Expressions	Peer Axis Types
Three Parts of XQuery	Path Expressions	Descendent Axis Types
XQuery Language Characteristics	Predicates	Ancestor Axis Types
Types of Queries	Element Constructors	Location Path Syntax
Where is XQuery used?	Other Query Expressions	Predicates
XQuery's Position	FLWR Expressions	For Expressions
XQuery and Other Technologies	Conditional Expressions	Quantified Expressions
XQuery Specifications	XQuery Comparisons	Conditional Expressions
Module 4 : XQuery Data Types	Module 5 : Joins	Module 6 : Functions and Operators
XPath Data Models	Expressing Joins	XPath Functions
Infoset and PSVI	Constructing Nodes	XQuery Functions
Three Building Blocks	FLWR Expressions	Regular Expressions
Items	For versus Let	Enhanced String Functions
Atomic Types and Values	Node Generation	Functions for Sequences
XQuery Type Hierarchy	Processing Instructions	XPath Operators
XML Schema Types	Element Constructors	XQuery Operators
String Types	Attribute Constructors	Comparison Operators
Date and Time Types	Text Constructors	Types Issues
Numeric Types	Other Constructors	Constructor Functions
Binary Data Types	Sample Queries	User Defined Functions
Module 7 : Advanced Concepts		
Library Modules		
Global Variables		
Recursive Functions		
Strong Typing		
XML Schema Validation		
String Search		
Queries using Namespaces		
Listing Namespaces		
Listing Target URI's		
Recursive Parts Explosion		
Access to Relational Data		
7.00000 to Molational Data		