

Module 6: XML Database and XQueries

Objective:

Understand how XML is used for interoperability among heterogeneous systems and how XML documents are represented, displayed and queried. Learn XML schema and database, and how a cycle in a database schema is represented in an XML schema. The objective is to develop experience in designing XQueries to query XML databases.

Topics:

- Importance of XML for interoperability
- XML characteristics
- XML document and Document Type Definition
- Extended regular expression
- XSLT (XML Stylesheet Language Transformation)
- XML database (XML documents with constraints)
- XML Schema, XML Name Space
- XSD (XML Schema Definition): for validation of an xml document
complexType, sequence, occurrence, constraints (key, keyref, unique)
- Database schema to XML schema; cycles in a schema
- XPath (navigation in an xml document)
- XQuery (uses XPath and control flow structures) - FLWOR
- BaseX tool to develop/test XQueries

Task:

Download BaseX Module from the course website and install it on a Windows local drive.
Watch the video of this module and test all XQueries in basex\queries folder using BaseX GUI.
Explore XML at <http://www.w3schools.com/xml/>

Assessment:

A solid preparation of this module will enable you to score well in quizzes, projects and exams.