DB2 and XML (3 Day)

Benefits

The student learns how DB2 has implemented the XML data type, and how to work with XML data in SQL and in application programs.

Audience

Application programmers, database administrators, systems administrators, and systems programmers who will be involved in developing, maintaining, or enhancing systems that will use XML in DB2.

Prerequisites

The student should be knowledgeable of the features of the DB2 Data Base Management System that are relevant for his/her job responsibilities.

Major Topics Include

- XML data type
- XML catalog tables
- XML functions for building XML documents
- XML functions for accessing XML data
- XPath expressions and functions
- Working with XML data in application programs
- XML and file reference variables
- XML indexes and performance
- DB2 utilities and XML
- Using the UNLOAD utility with XML data
- Using the LOAD utility with XML data
- The DB2 XML schema repository
- Stored procedures for managing the schema repository

There are 7 hands-on exercises.

Enterprise COBOL Debugging and Maintenance - Topical Outline

Introduction
XML overview
XML and DB2
XML catalog tables
    SYSIBM.SYSXMLRELS
    SYSIBM.SYSXMLSTRINGS
Sample tables
    Computer Exercise: Course Setup

XML functions in DB2 that build XML documents
    XMLELEMENT
    XMLATTRIBUTES
    XMLCONCAT
    XMLFOREST
    XMLNAMESPACES
    XMLAGG
    XMLCOMMENT
    XMLDOCUMENT
    XMLPI
    XMLTEXT
    XMLPARSE
    Computer Exercise: XML SQL functions, 1

XML functions in DB2 that access XML
documents
    XML2CLOB
    XMLSERIALIZE
    XPath, part 1
    XMLQUERY
    XMLEXISTS
    XMLTABLE
    XMLCAST
    Computer Exercise: XML SQL functions, 2

XML in application programs
    DCLGEN
    XML variables
    XML file reference variables
    XML data modification
    XML data retrieval
        Single row SELECTs
        Using cursors
    XMLMODIFY function and partial updating
    Computer Exercise: XML in Application
Programs

XPath functions
XML indexes
XML index for XML joins
XPath index enhancements
XMLTABLE query transformation

Computer Exercise: XML Indexes

XML and utilities
    CHECK DATA, CHECK INDEX, COPY,
    COPYTOCOPY, EXEC SQL,
        LISTDEF, LOAD, QUIESCE, REBUILD
        INDEX, RECOVER, REORG,
        REPAIR, REPORT, RUNSTATS,
        UNLOAD
    UNLOAD and XML data
    File reference variables with LOAD and
    UNLOAD
The DSNTIAUL program
    Computer Exercise: Working with XML data
    with utilities

XML schemas
The Schema repository:
    SYSIBM.XSROBJECTS
    SYSIBM.XSROBJECTCOMPONENTS
    SYSIBM.XSROBJECTHIERARCHIES
Schema validation
    Type modifiers
    DSN_XMLVALIDATE function
    XMLXSROBJECTID function
    Type modifier catalog tables
        SYSIBM.SYSXMLTYPMOD,
        SYSIBM.SYSXMLTYPSCHEMA
Schema stored procedures:
    XSR_REGISTER
    XSR_ADDSCHEMADOC
    XSR_COMPLETE
    XSR_REMOVE
        Computer Exercise: Working with
        Schemas

Odds and ends
    Document versioning
    XML date and time data types
    XML Data Type in SQL Procedures
    DEFINE NO for LOB and XML table spaces
    Binary XML