

XML Applications with SQL Server 2000

Table of Contents

INTRODUCTION	INTRO-1
Courseware Conventions	INTRO-2
System Requirements	INTRO-3
The Practice Disks	INTRO-4
Chapter Files	INTRO-4
IIS Files	INTRO-4
The Northwind Sample Database	INTRO-5
About the Author	INTRO-6
XML OVERVIEW	1-1
A Standard for Exchanging Data	1-2
Using Traditional Text Files	1-2
Shortcomings of Traditional Text Data	1-3
From HTML to XML	1-3
Advantages of Using XML	1-10
XML Supporting Technologies.....	1-12
Using Namespaces to Avoid Ambiguity	1-12
Defining and Validating XML.....	1-13
Transforming XML with Style Sheets	1-18
Combining XML with HTTP	1-23
HTTP	1-23
XML/HTTP Features in SQL Server 2000	1-24
Accessing SQL Server over HTTP.....	1-24
Retrieving Data as XML.....	1-24
Creating XML Views	1-24
Sending Data to SQL Server as XML.....	1-25
Programmatic Access.....	1-25
LAB 1: XML OVERVIEW	1-29
Lab 1 XML Overview.....	1-30
Creating an XML Document	1-31
SETTING UP HTTP ACCESS TO SQL SERVER	2-1
Creating a Virtual Directory for SQL Server	2-2
Naming and Identifying the Directory	2-2
Configuring Security.....	2-6

Authentication Options.....	2-6
Limiting the Query Types Allowed.....	2-8
Setting Up Virtual Names	2-12
Using URL Queries and Templates	2-15
Embedding Transact-SQL in a URL.....	2-15
Calling an XML Template.....	2-16
LAB 2: SETTING UP HTTP ACCESS TO SQL SERVER.....	2-21
Lab 2 Overview	2-22
Set Up an IIS Virtual Directory.....	2-23
Test IIS Data Access.....	2-25
RETRIEVING QUERY RESULTS AS XML	3-1
Using FOR XML	3-2
Viewing XML Results in Query Analyzer	3-2
FOR XML AUTO	3-5
FOR XML RAW	3-9
FOR XML EXPLICIT	3-10
Returning Schema	3-16
Handling Binary Data	3-17
FOR XML Results Are Fragments	3-18
Retrieving XML from URL and Template Queries.....	3-20
Using URL Queries.....	3-20
Template Queries	3-22
LAB 3: RETRIEVING QUERY RESULTS AS XML.....	3-33
Lab 3 Overview	3-34
Creating URL and Template Queries.....	3-35
Things to Consider.....	3-35
Using FOR XML EXPLICIT	3-37
Things to Consider.....	3-37
CREATING AND USING XML VIEWS.....	4-1
Understanding XML Views	4-2
Comparing XML and Relational Views	4-2
XML Views Are Annotated Schemas	4-2
Creating XML Views	4-4
Annotating a Schema	4-4
Using the SQL Server XML View Mapper.....	4-6
Prerequisites.....	4-6

Installing the View Mapper.....	4-7
Getting Started with the View Mapper.....	4-7
Using XML Views and XPath to Query SQL Server Data.....	4-19
Using Template XPath Queries with Annotated Schemas.....	4-19
Using URL XPath Queries with Annotated Schemas.....	4-19
Using XPath to Retrieve SQL Server Data Directly.....	4-24
dbobject Virtual Names.....	4-24
LAB 4: CREATING AND USING XML VIEWS.....	4-29
Lab 4 Overview.....	4-30
Creating and Using an XML View.....	4-31
PROCESSING XML DOCUMENTS IN TRANSACT-SQL.....	5-1
Understanding the XML Document Object Model (DOM).....	5-2
Microsoft's DOM Implementation in MSXML.....	5-2
Support in SQL Server 2000.....	5-2
Limitations of the DOM.....	5-3
Parsing XML Data with OpenXML.....	5-4
A Data Input Scenario.....	5-4
OpenXML Fundamentals.....	5-5
Using XPATH to Locate Data.....	5-7
Releasing Memory.....	5-7
Testing the Procedure.....	5-8
Defining the OpenXML Rowset.....	5-10
Schema Declarations.....	5-10
Using OpenXML to Modify Data.....	5-14
Inserting Data from XML into SQL Server with OpenXML.....	5-14
LAB 5: PROCESSING XML DOCUMENTS IN TRANSACT-SQL.....	5-21
Lab 5 Overview.....	5-22
Using OpenXML.....	5-23
MODIFYING DATA WITH UPDATEGRAMS AND XML BULK LOAD.....	6-1
XML for SQL Server 2000 Web Release 1.....	6-2
Installing the Web Release.....	6-2
Using Updategrams to Modify Data.....	6-4
What Is an Updategram?.....	6-4
Executing Updategrams.....	6-4
Updategram Syntax.....	6-5
Using Updategrams to Modify Data.....	6-6

Adding and Deleting Records	6-8
Retrieving Identity Values	6-8
Handling Multiple Changes	6-10
Guidelines.....	6-10
Updategrams and Parameters	6-12
XML Bulk Load.....	6-14
Overview.....	6-14
The XML Bulk Load Object Model.....	6-15
LAB 6: MODIFYING DATA WITH UPDATEGRAMS AND XML	
BULK LOAD	6-29
Lab 6 Overview	6-30
Using an Updategram to Insert Data	6-31
Using an Updategram to Edit Data	6-33
INDEX.....	INDEX-1