

Recent Developments for Data Models (and Query Languages)

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SS2008

Outline

Overview

I. Object-Relational Database Concepts

1. User-defined Data Types and Typed Tables
2. Object-relational Views and Collection Types
3. User-defined Routines and Object Behavior
4. Application Programs and Object-relational Capabilities
5. Object-relational SQL and Java

II. Online Analytic Processing

6. Data Analysis in SQL
7. Windows and Query Functions in SQL

III. XML

8. XML and Databases
9. SQL/XML
10. XQuery

IV. More Developments (if there is time left)

temporal data models, data streams, databases and uncertainty, ...



Books

- "Advanced SQL:1999 – Understanding Object-Relational and Other Advanced Features", Jim Melton, Morgan Kaufmann, 2003.
- "Objektrelationale und objektorientierte Datenbankkonzepte und –systeme", Andreas Geppert, dpunkt Verlag, 2002.
- "Understanding SQL and Java Together - A Guide to SQLJ, JDBC, and Related Technologies", Jim Melton, Andrew Eisenberg, Morgan Kaufmann, 05/2000.
- "XQuery – Ein Lehrbuch", Wolfgang Lehner, Harald Schöning, dpunkt Verlag, 2004.
- XQuery from the Experts: A Guide to the W3C XML Query Language, Howard Katz, Don Chamberlin, Denise Draper, Mary Fernandez, Michael Kay, Jonathan Robie, Michael Rys, Jerome Simeon, Jim Tivy, Philip Wadler, Addison Wesley, 2003.

