Database II - 91.310

Fall 2005

Introduction

• Texts:
  – John Sieg, *A Guide to Developing Applications With Oracle* (draft)
• Course web site: www.cs.uml.edu/~john/91.310/
  (includes links to anonymous suggestion box, discussion board, and “grades so far”)
• Prerequisites: Database I (preferably, B or better); operating system concepts useful but not required

Objectives

• Students will be fluent with phases of the database-application development process.
• Students will master all phases of the design process for database application development.
• Students will understand how database-system components such as the optimizer, concurrency control subsystem, recovery subsystem, and security subsystem, impact the development of database applications.
• Students will understand recent and coming innovations in database technology and how they impact database application development.

Prof. John Sieg

• Research in query optimization and scheduling transactions
• Olsen 211, john@cs.uml.edu
• Home page (including office hours, etc.):
  www.cs.uml.edu/~john
91.310 - Grading

- Midterm Quiz 30%
- Final Quiz 30%
- Project 25%
- Assignments 15%

Quizzes

- midterm and final (mostly non-cumulative)
- closed book
- Except for documented emergencies, quizzes must be taken on (or before) quiz date. Please see syllabus for complete policy.

Project

- Re-implement and extend a Forms Developer application in JDeveloper 10g.
- Preferred applications: advising & course applications.

Probable Course Content – Database System Implementation

- query optimization
- recovery
- security
- distributed database systems
- parallel database systems
- Oracle examples
## Probable Course Content – Extending Database Systems

- deductive databases
- OLAP and data warehouses
- object-oriented database systems
- object-relational database systems
- Web databases
- Oracle examples

## First Assignments

- **Friday, 9/9**: Read Ramakrishnan, Chapter 7, “Internet Applications”.
- **Wed., 9/14**: Work through the Oracle online tutorial on JSPs.
- **Mon. 9/19**: Read Selinger et al. “Access Path Selection...” paper.
- **Fri. 9/23**: Read Burleson, "Cost Control: Inside the Oracle Optimizer"