CS 701 Database Systems and Design

Winter Quarter, 2009

Description : Introduction of DB design concepts and operating principles of database systems.

Prerequisite : CS405/605 or equivalent.

Instructor : Dr. Soon M. Chung
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Class : Section 01: M. W. 4:10-5:25 p.m., 402 Millet.

Office hour : M. W. 2:30-3:30 p.m. at 403 Russ Center, or by appointment.
* Use e-mail for short questions.

Text Book : R. Elmasri and S. B. Navathe, Fundamentals of Database Systems, 5th (or 4th) edition, Addison-Wesley.

Topics : Relational DB Design Methods and Dependencies (ch. 10, 11, 12)
System Catalog
Query Processing and Optimization (ch. 15)
Scheduling, Concurrency Control and Recovery of Transactions (ch. 17, 18, 19)
Enhanced ER Modeling (ch. 4)
Object-Oriented Databases (ch. 20, 21)
Distributed Databases (ch. 25)
Security and Authorization (ch. 23)

Grading : A:[85,100], B:[75,85), C:[65,75), D:[55,65), F:[0,55)
Midterm 30% (on 2/11), Final 40% (on 3/16, 5:45-7:45 p.m.), and Project 30%.
Project is either paper-review or DB Transaction programming (select by 2/20)

(1) paper-review project 30%
{ papers referenced 7%, technical quality of the report 7%
written presentation of the report 7%, discussion 9% }
- submit the topic and a list of selected papers by 2/18.
- submit the final report (around 25 pages in double space) by 3/16.

(2) DB Transaction programming 30%
{ specification 7%, design 7%,
correctness 7%, discussion 9% }
- submit a description of database and transactions by 2/18.
- submit the final report by 3/16.