

Introduction to Database Systems CSE 444

Midterm Topics

April 28, 2008

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Midterm

Wednesday, 12:30-1:20, in class.

- Main topics
 - SQL
 - E/R diagrams
 - Conceptual design, BCNF

- And a little XML (very lite)

Open book exam

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I. SQL

- Basic SELECT-FROM-WHERE
- Aggregates and GROUP BY
- Subqueries and non-monotone queries
 - NOT EXISTS
 - ALL
- INSERT/DELETE/UPDATE

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II. E/R Diagrams

- E/R diagram basics
 - entity sets, relationships, IS-A, weak entity sets
 - Read all slides - including weak entity sets
- Conversion to relations
 - What are the keys? The foreign keys?
- Subtleties
 - Many-one or one-one relationships
 - IS-A
 - Weak entity sets

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III. FDs and BCNF

- Anomalies
- Basic definition
 - What does $X \twoheadrightarrow Y$ mean, how do we check if it holds
- Inference
 - Armstrong's rules, X+
- BCNF
 - Understand how to use the algorithm on the slides

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Final Advice

- Open book
 - But don't plan on reading during the midterm!
- Some questions are easy, others are harder
 - Do the easier ones first
- Have fun!
For some definition of fun!

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