Introduction to Database Systems
CSE 444

Interlude
Midterm Topics

October 26 2007

1

Midterm

Monday, 10:30-11:20, in class.

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

  - And a little XML (very lite)

Open book exam

2

I. SQL

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

3

II. E/R Diagrams

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

4

III. FDs and BCNF

- Anomalies
- Basic definition
  - What does X --> Y mean, how do we check if it holds
- Inference
  - Armstrong's rules, X+
- BCNF
  - Use the algorithm on the slides

5

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!

6