

Midterm I Topics

Database Systems
CSCI 440, Fall 2014

Midterm I : Friday, October 3, 2014

Course Material

- Chapters: 1, 2, **3**, **4**, 5.1, 7.1-7.7
- Slide Decks: 1, 2, 3, 4, 5, 8
- Homework: #1

SQL Commands, Operators, and Keywords

- SELECT, FROM, WHERE
- CREATE TABLE, PRIMARY KEY, FOREIGN KEY, REFERENCES
- CONSTRAINT, ON DELETE, ON UPDATE, NOT NULL, UNIQUE, DEFAULT
- INSERT INTO, VALUES, DELETE FROM, UPDATE, SET
- AND, OR, UNION, INTERSECT
- AS, IN, ANY, SOME, ALL
- DISTINCT, ORDER BY, DESC, ASC, GROUP BY, HAVING
- EXISTS, NOT EXISTS
- LIKE, BETWEEN
- SUM, MAX, MIN, AVG, COUNT
- % _ * ; = < > ...

Midterm Format

- T/F questions on terms/concepts/history
- Multiple choice on terms/concepts/history
- Given a Relational DB (such as Fig. 3.6, p.72) ...
 - Understand keys, including foreign keys (e.g., Fig. 3.7, p.75)
 - Understand constraints:
 - * types and their meaning
 - * includes syntax (e.g., Fig. 4.1, p.91)
 - * includes violations (C3.3)
 - * **excludes** *creating triggers and assertions (skip C5.2)*
 - Understand SQL logic with NULL
 - Execute a given query and display the results
 - Convert an English query to SQL
 - Use aggregation (C5.1.7)
 - Understand and execute a simple nested query (C5.1.2)
 - FROM using multiple tables with a WHERE (e.g., Q2, p.100, Q15, p.106)
 - * these are implicit joins in the FROM using commas
 - * **excludes** *explicit joins (skip C5.1.6)*
 - Draw a simple ER schema diagram (e.g., Fig. 7.2, p.204; Fig. 7.14, p.223)

Notes

- No textbook, notes, or electronic devices permitted.

Exam Time & Location

- Friday, October 3, 2014 in class (11-11:50a in EPS 108)