CPSC 5021 Database Systems
Fall 2017

Midterm Exam Review

Midterm Exam is on Thursday, Oct. 26 during class (6:00 – 8:00 PM).

Primary list of topics

- Introduction
    - Database
    - DBMS
- Data modeling
    - Entity, attribute, relationship (1:M, M:N, 1:1), constraint
    - Super key, candidate key, primary key, foreign key
    - Index
    - Relational Algebra
        - ✓ select
        - ✓ union
        - ✓ project
        - ✓ difference
        - ✓ join (natural join, outer join, left outer join, right outer join)
        - ✓ product
        - ✓ intersect
        - ✓ divide
- Entity Relationship Model
    - Develop an ER diagram for a given application using craw's foot notation
        - ✓ connectivities
        - ✓ cardinalities
        - ✓ strong relationship, weak relationship
        - ✓ PK, FK
        - ✓ linking entity (convert M:N to 1:M)
        - ✓ entity supertypes and subtypes

Exam Logistics

- The exam is closed book and notes except for one 8.5" x 11" sheet of notes (both sides).
- Calculators and other electronic equipment such as laptops, PDAs, and cell phones are not permitted.
- The exam will start promptly at 6:00 pm. Extra time will not be given for students who arrive late.
- In general, the questions are derived from the lecture material. If there is something covered in the book but not in lecture, it is probably not on the exam.