CSC 261/461 – Database Systems
Lecture 27

Fall 2017
Final

• On Dec 18

• 7:15 pm - 8:45 pm (90 minutes)

• Location: CSB 601
Announcements

• Course Evaluation
  – The link is at my.rochester.edu.
  – Click on the Student Access tab and select the Course Evaluation Results from Spring 2012 - Current.
  – Once you complete all your course evaluations you will be permitted to view your grades as they become available.

  – I will really appreciate your feedback.
  – Let me know:
    • What you liked about the course
    • What you did not like much (I will work on that to improve)

I am offering the course again in Spring 2018.
So, your feedback is really important
Fall vs. Spring Offering

- Less students
- More interactions
- More in-depth coverage
- More Graduate Students than Undergraduate
- More Data Science Students

I really enjoyed this small class (vs 100 students next semester) with a lot of energetic students.
Grad vs UG

- 71.9% Graduate
- 28.1% Undergraduate
Major

- 40.6% Computer Science
- 34.4% Data Science
- 9.4% Electrical and Computer Engineering
- Non matriculated, interested in Data Science and Biostatistics
- Alternative Energy
- Physics
- Linguistics
- TEAM
Did you take CSC 172?

- Yes: 37.5%
- No: 62.5%
If 'no', have you ever taken a course similar to CSC 172

If any of you need to brush up data structures knowledge:
1. You can review slides from my current offering: http://www.cs.rochester.edu/courses/172/fall2017/
COURSE COVERAGE
User Perspective

Why Database Systems (vs. List or Microsoft Excel)

How to design a database system? (Requirement Analysis; Queries Supported, Forms (for input), Reports (for output))

ER Diagram

Relational Schema and SQL Queries
What did we learn in this course (After MidTerm)

- How and Where to Store the data?
- Do I need indexing?
- How to make the queries optimized?
- How to make sure all the transactions maintain ACID property
Chapters to Study for Final

• SQL

• Whatever we covered after midterm:
  
  – File Structures, Indexing, and Hashing
    • Chapter 16 (Disk Storage, File Structure and Hashing)
    • Chapter 17 (Indexing)

  – Query Optimization
    • Chapter 18
    • Chapter 19

  – Transactions
    • Chapter 20
    • Chapter 21
    • Chapter 22

For most of these topics, going through the slides and working on the problem sets are good enough.
Final

- 60 pts
  - 20 pts short questions
  - 40 pts longer questions
  - Mostly focuses on topics covered after Mid-Term
  - SQL is included
  - There will be extra credit problems!
Topics to Study

• Main Modules:
  – File Structures, Hashing, Indexing
  – Query Processing and Optimization
  – Transactions
  – Projects
    • Project 2: SQL + Triggers

Each of these 4 sections is worth between 10 and 20 pts.

No question on Functional Dependencies
No question on Normalization
No question on ER diagrams
No question on MongoDb
That’s all

“Thata’s all Folks!”
Acknowledgement

- CS 145 offered by Stanford University
- Textbook authors
- Numerous websites

- Last but not the least

All of you

THANK YOU
It's Exam Time!
Here's a BIG
GOOD LUCK!

wish to you