EECS 484: Database Management Systems
Lecture 00 – Course Policies and Overview

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Course Goals

- GOAL: Basic introduction to database management systems.
- Two perspectives:
  - External (*Database user*)
    - Data models, ER model, relational model, SQL, database design …
    - Java/JDBC Project: Common platform for building database applications
  - Internal (*Database implementer*)
    - File organizations, access methods, concurrency control, recovery, …
    - Minirel Project (C++): Build components of a Database System
- Textbook "Database Management Systems", by Raghu Ramakrishnan & Johannes Gehrke. 3rd ed.

Overrides

- Course is full. Overrides limited.
- EECS 281 and relevant programming experience required to have a shot at an override.
- Non-CS graduate students: Fill out an application form at the CSE undergrad office to apply for an override.
  - https://www.eecs.umich.edu/eecs/undergraduate/permission_request_form.docx
  - Include your transcript, highlighting relevant courses.
  - Provide the form to the undergrad office (or to me)

Teaching Staff

- Atul Prakash, Professor in CSE
- Kevin Eykholt, Ph.D. student in CSE
- Ahmad Shahab Tajik, Ph.D. student in CSE
- Yang Liu, Ph.D. student in CSE
- Xieyang (Michael) Liu, CS BSE.

Course Communication Tools

- Canvas: https://canvas.umich.edu (not yet active)
- Piazza: Use this for technical or clarification questions. Look for EECS 484 Fall 2016 group. Join if you aren't automatically enrolled.
  - We may not answer between 10 PM and 9 AM.
  - But students are encouraged to answer when they can. We will endorse good answers, and correct and clarify if your answer has a mistake.
- Teaching staff email: eecs484f16@umich.edu. Generally for non-technical or administrative questions.

Office hours

- No office hours this week for TAs.
- Office hours for next week and subsequent weeks will be posted in a Canvas calendar.
- I will be available from 2-3 PM today.
  - 4741 BBB

Course Calendar

- To be made available

Course Grading

Exams + graded homework quizzes	60%
Four projects [each worth 10%]	40%

Exams + quizzes (60%)

- Two exams, one for each half of the course
  - Midterm: 25-30%
  - Final: 25-30%
  - Equal weights, not cumulative
- Quizzes
  - Some homework will in the form of online quizzes (possibly modest coding) and will be graded. Each quiz *typically* 1-2% of the grade – reduces exam weightage correspondingly.

Homework Assignments

- Some non-quiz homework assignments
- Not graded.
- Submit for ”brownie points” by any due date specified. Could factor in as evidence of effort and learning if grade is borderline.
- Provide important intellectual experience.
  - Solutions sometime look “obvious” in hindsight
  - Doing the problems and making mistakes increases retention of how to do problem right

Projects

- Total of 4 projects. Equal weights.
  - P1: ER Modeling and Database schema design (some coding + SQL)
  - P2: Oracle application. (Java coding, lots of SQL)
  - P3: Transactions and recovery (C++, data structures)
  - P4: Still being decided. (B+-trees or MongoDB)
- Transaction and Recovery project will be an individual submission.
  - Hey, you should at least be able to do one serious project by yourself :-)

Piazza – forming groups

Project repository

- No grace period for loosing your work to disk crashes, etc.
- Thus BACK UP all files!
- Ideas:
  - Use Google or Box drive
  - Use a git or subversion repository to keep older versions, especially for coding projects

Engineering Honor Code

- No reuse of old solutions or parts of solutions from anywhere (including the Internet) is permitted
- Work on projects must be entirely your own (or your partner, if working in a group). Ask TA/IA or instructor if you need help that requires looking at your project solution.
- Only conceptual discussions allowed with others – similar to what you would be comfortable doing on Piazza publicly.
- No sharing of code or solutions, even after the semester is over.
- If in doubt about the policy, ask Professor Prakash.
- Violations will be reported to the Engineering Honor Council

Discussion Sections

- Not optional!
- All discussions have identical content
- If you have to miss your regular section one week, attend another. But stick to one as a rule

Discussion: This Week

- **No discussions this week.** But, for those of you who haven't programmed in C++ or Java, use the week to self-learn.
- Our grading platform is Linux. Try logging into to a CAEN Linux machine, creating a small program in both languages, compiling it, and running it.
- Learn about Makefiles.
- Once we post information about Oracle accounts, try logging in and play with SQL.

Course Policies

- Homeworks and Quizzes:
  - Due before Wednesday discussion.
- Project:
  - typically due by 11:55 PM on Thursdays
- Late policy on projects: 4 day grace period (15% late penalty fixed).
- No grace period on quizzes + homeworks

More on grading

- Reasonable performance on both projects and exams is expected to get a grade of C or higher, irrespective of your overall percentage
- Grad students graded on the same curve as undergrads.

Work hard and be helpful

- Working with a databases is an employable skill. Get the most out of this course.
- Be helpful on piazza! Mistakes in answering questions are OK – Part of learning.
- Strong grades give you a shot at grader, IA, and GSI positions in future semesters.
- Can lead to a stronger resume for jobs and graduate school