Fall 2010

ICS321 Data Storage & Retrieval

Mon & Wed 12-1:15 PM

Asst. Prof. Lipyeow Lim

Information & Computer Science Department

University of Hawaii at Manoa

Staff

- Instructor: Lipyeow Lim
  - Firstname is fine!
  - www2.hawaii.edu/~lipyeow/
  - POST 303E, lipyeow@hawaii.edu, 808-956-3495
  - Office Hours Wed 2-4 PM or by appointment

- Undergraduate TA/Grader:
  - Vivian Cheng likwai@hawaii.edu

Please Introduce Yourself

- Name
- Year of study
- Major
- What do you hope to learn in this class ?
- One “distinguishing” fact about yourself to help me learn your name
  - Eg. Hobby, place of origin, job, travels, what you did last summer ...

Poll

- How many of you have:
  - Taken Discrete Math I (ICS141) ?
  - Programmed in Java ?
  - Programmed in C ?
  - Used unix shell commands ?
  - Used a database before ?
  - Used linux ?
  - Used cloud computing platforms like Amazon EC2 ?
  - Used virtualization technology like Vmware, Xen, KVM, virtualBox ?

Communications

- Webpage:
  - www2.hawaii.edu/~lipyeow/ics321/2010fall/
- Laulima
  - laulima.hawaii.edu
  - Grades of quizzes, homework, exams will be posted there
  - Discussions
- Emails

Textbook

- Required:
  - **Database Systems: The Complete Book (2nd Edition)**.
  - Hector Garcia-Molina, Jeff Ullman, and Jennifer Widom.
  - ISBN-13: 978-0-13-187325-4.
- Alternate:
  - **A First Course in Database Systems (3nd Edition).**
  - Jeff Ullman, and Jennifer Widom
- Previous:
  - **Database Management Systems, Third Edition.**
  - Raghu Ramakrishnan and Johannes Gehrke.

Format

- Class time: Mon & Wed 12-1:15 PM
  - Lecture (Mon & Wed)
  - Group discussion & problem solving (Mon)
  - Hands-on Session (Wed) – *Please bring your computer.*
- Quizzes every Monday (20%) – *probably online*
- 2-3 Homework assignments (20%)
- One course project (20%) – *group work*
  - Includes a recorded 8 minute presentation & a live Q&A
  - Peer evaluation
- One mid-term exam (20%)
  - One letter size sheet of notes allowed
- One final Exam (20%)
  - One letter size sheet of notes allowed

Pre-requisites

- Understand set theory (ICS 141 Discrete Math)
- Understand propositional logic (ICS 141 Discrete Math & ICS 111 Intro to CS)
- Be able to write a program in Java (ICS 111+211)
  - Use a text editor
  - Command shell
  - Compile and run programs
- Have access to a computer (preferably a laptop)
- Have internet access

To do well in this class ...

- Keep up with the readings
- Attend class and participate
- Review the material for the quizzes, mid-term, and final
- Do the homework assignments
- Start on the project early
- Take charge of the learning process
  - Try out the commands on the DBMS
  - Make use of the exercises in the textbook

Focus on understanding the material to the point that you can apply it in different contexts!

Why take this course ?

- Database-related jobs eg. DBA
- You'll likely deal with data management in your (future) jobs
- Database technology is behind almost all internet technology
- …

Group Discussion

- How would you implement an internet store without using any database software ?
  - List all the questions, challenges or difficulties you encounter as you discuss the high level steps.

Group Discussion Results

Homework & Next Class

- Homework to be completed BEFORE coming to class on Wed
  - Install VirtualBox on your laptop
  - Download Ubuntu 10.04 Desktop Edition image to your laptop
  - Download DB2 Express-C 9.7 to your laptop
- Next class, we will spend 30 minutes to
  - Install Ubuntu onto a virtual machine (VM) using VirtualBox
  - Install DB2 onto the VM
- See links on the course website for more info.