

Relational Databases

Australian National University
Department of Computer Science
Comp2400/Comp6240
Semester Two, 2008

General Course Information

Outline

This course aims to provide an understanding of relational databases. The central topics are the relational data model and SQL. This will include some of the underlying mathematics as well as notions of integrity, constraints and normalisation. Database design will be taught using UML class diagrams. We will also learn query and transaction processing, file access methods, security and recovery.

People

The lecturer is Greg O'Keefe greg.okeefe@anu.edu.au.
The course tutor is Ben Lippmeier, and he will give the lectures after the break.
We also have Kunnal Khiatani and Cong Huynh as tutors.

Information Sources

The course website is at

<http://cs.anu.edu.au/students/comp2400>

All the lecture notes, lab worksheets, handouts, news and announcements will be made available there.

The Student Registration and Marks System, StReaMS

<http://cs.anu.edu.au/streams>

contains a student discussion forum, which some of the teaching staff will monitor and post to. StReaMS is also used for students to enrol themselves in lab groups.

The course text is

Fundamentals of Database Systems
5th edition, Elmasri and Navathe
Addison-Wesley, 2007

Students are encouraged to obtain a copy. Readings will be specified from the book, and this material will be assessable even if not explicitly covered in the lectures. Earlier editions are fine, with the minor inconvenience of adjusting references.

The open source relational database management system PostgreSQL will be used in the labs. The PostgreSQL documentation is recommended for additional reading,

and includes an excellent SQL reference. It is available on the labs page of the course web-site.

<http://cs.anu.edu.au/students/comp2400/labs>

The documentation is also available, along with the PostgreSQL software and other resources from the PostgreSQL web-site.

<http://www.postgresql.org>

Activities

There are three 50 minute lecture times each week, but two of them are scheduled together, giving us a two hour block:

Wednesday	1pm	Physics Theatre
Thursday	2pm	Chemistry Theatre 1
Thursday	3pm	Chemistry Theatre 1

The second Thursday lecture will often have an interactive, question and answer format rather than yet another hour of Greg talking. Lectures will often conclude with an exercise or question which will be considered in the following lecture. There will also be assigned readings from the course text.

Recordings of the lectures will be made available on the course web-site along with transparencies in both presentation and printable formats. The goal is to make the slides available the day before the lecture. Therefore, students who are unable to attend a lecture can keep up with the course, but students should attend the lectures whenever they can. Slide preparation can be delayed, and technical problems can occur with the recordings, so do not rely on these services.

There will be 5 two hour lab sessions. These will be held in DCS room N114 or N113. The first lab session will be in the week starting 4th August, and then every second week.

Lab	Week Beginning
1	4 August
2	18 August
3	1 September
4	15 September
5	20 October

Each student must join one of the lab groups using StReaMS

<http://cs.anu.edu.au/streams>.

The worksheets for these sessions will be on the labs web page.

<http://cs.anu.edu.au/students/comp2400/labs>

Assessment

The assessment consists of the following components

10%	lab exercises	Tutors will assess attendance, participation and exercise progress in the labs.
20%	assignments	Two assignments counting for 10% each.
20% or 0%	mid-semester exam	A one hour exam on the first half of the course.
50% or 70%	final exam	The exam will cover the whole course content, including assigned readings.

Students will receive the highest mark from the two possible weightings. That is, if you do terribly in the mid-semester exam, but do better in the final exam, then the final will count for 70% and the mid-semester result will be ignored.

Final marks may be scaled.

Do not leave the assignments until the last minute. *Assignments will only be accepted after the due date and time if there is written evidence of a serious and unforeseeable situation that prevented it from being completed.*

Cooperation and Plagiarism

Discussing the course content and activities with other students is a great way to learn, and we encourage it. However *work you hand in for assessment must be your own*. Assignments will be submitted electronically, and run through plagiarism detecting software. Tutors will be on the alert for copied work. Incidents of plagiarism will be taken seriously and can result in disciplinary action.

Manage Your Own Learning

It is your job to learn the course content. The teaching team will do various things that should help you do this, but do not assume that the official course activities (lectures, labs, assignments) are “enough”. The laboratory exercises, and the exercises suggested at the end of lectures provide an opportunity to assess your understanding of the course material. The text has exercises and review questions at the end of each chapter. The assignments and mid-semester exam will also provide valuable feedback.

If you do not understand something, then do something about it.

Here are some suggestions.

- Reread the relevant lecture notes or sections of the text.
- Post a message on the discussion forum.
- Find alternative sources in the library or on the internet (but be careful, there is rubbish out there).
- Ask your class-mates.

- Talk to the lecturer (Greg), or your tutor.