Syllabus for IS 202

Objectives

The goal of this course is to give basic knowledge of database systems to a student who intends to be a computer or software engineer. It provides a comprehensive introduction to data models including entity-relationship data model and object oriented data model. SQL database language and object orientation in query languages are studied in detail together with laboratory practices. In the laboratory mySQL databases will be used in conjunction with PHP web programming.

Textbook

J. D. Ullman and J. Widom, A First Course In Database Systems, 2nd Ed.,
Prentice-Hall, 2002 (ISBN: 0-13-122520-0)
The book's home page is :
http://www-db.stanford.edu/~ullman/fcdb.html

References

Silberschatz et. al., Database System Concepts, 4th ed.,
McGraw-Hill, 2002

Grading

(Tentative) Evaluation: (The grades may be curved if need be)

Quizzes and Participation	%20
Project	%20
Midterm Exam	%25
Final Exam	%35

Course Outline

Week	Chap.	Topic
1	1	Introduction to Database Systems
2	2	Entity-Relationship Data Model
3	3	Relational Data Model, Functional Dependencies
4	3	Design of Relational Databases, Multivalued Dependencies
5	5	Relational Algebra
6	6	Introduction to SQL (Part I)
7	6	Introduction to SQL (Part II)
8		MIDTERM EXAM
9	7	Constraints and Triggers
10	8	PSM, PL/SQL
11	8	Embedded SQL, CLI, JDBC
12	4	Object Relational Model, XML
13	9	Object-Orientation in Query Languages
14	10	Logical Query Languages (Datalog)
15		Review

Assignments

There will be on-paper assignments as well as programming assignments (Lab.)
Late assignments will not be accepted.
Do not submit homeworks. Study/solve the homework problems to prepare for the homework quizzes (small written examinations to test your understanding of the subject). To fully prepare for quizzes study lecture notes, go through the examples in the text book.
In addition make sure that you go through the starred exercises (with solutions in the text's website) and understand them.
Typically, quiz questions will be similar to those of the homework questions.
Homework quizzes will be given at the final hour of each lecture day. There will be no make-up quizzes.

Office Hours

Room: 406
Tue: 13:30 - 15:30
Wed: 13:30 - 15:30

Class Webpage

Is202.allmer.de
All information will be presented here.

- Quiz including sample solution
- Student achievements
- Lecture slides

Questions regarding course content should be first posted in the forum.
Fellow students can gain bonuses by answering these questions.
If there is no answer and the question needs immediate attention:
MSN: jens@allmer.de