Course Syllabus

Course: CS 3550 Distributed Database Programming

Instructor: Jason R Brown
Class Locations/Times: M&W 7:30 - 9:20 PM (SLCC)
Phone: 801-349-0582

Course Prerequisites

- Knowledge of relational theory, including normalization and referential integrity
- Knowledge of basic SQL (both DML and DDL)
- Knowledge of ER diagramming techniques and how to turn this into a database schema

If you’ve taken CS 2550 (Weber) or CIS 2600 (SLCC), these topics were covered - please come talk to me if you have not taken these courses, or if you have questions about the knowledge and skills listed above.

Course Description

This course provides students with the technical skills required to implement a database solution, in this case, with Oracle. Topics include: architecture, key features of Relational Database Management Systems (RDBMS), reviewing RDBMS (Oracle) programming tools, PL/SQL, creating databases, data integrity and constraints, planning and creating indexes, advanced query techniques, summarizing data, managing transactions and locks, implementing views, stored procedures, user defined functions and triggers, working with distributed data, XML and Microsoft’s common language runtime.

Course Delivery

Class will consist of a mix of lecture, student discussion, lab and homework related to the responsibilities and activities of a Database Administrator. Questions and comments during class time are encouraged (and participation will be graded). Database concepts will be illustrated in class using reading assignments and discussions. It is expected that students will have read the covered chapters prior to the class on the topic. The instructor will ask questions of the students to ensure that learning is taking place. Students will also learn how to install and administer databases through assigned exercises in the classroom.
Course Objectives

- Examine advanced concepts and issues in database modeling and design
- Construct a Logical Data Model
- Apply the rules of normalization
- Create tables that enforce data integrity and referential integrity
- Create and maintain indexes
- Manage data by using SQLplus, cursors, and locks
- Create and manage explicit, implicit, and distributed transactions to ensure data consistency and recoverability
- Write INSERT, DELETE, UPDATE, and SELECT statements that retrieve and modify data
- Formulate SQL statements that use joins or sub queries to combine data from multiple tables
- Create and execute stored procedures, user defined functions, and triggers to enforce business rules
- Implement error handling by using return codes and RAISERROR statements

Course Policies

Accommodations

Students who have special needs or disabilities that may affect their ability to access information and/or material presented in this course are encouraged to contact Lee Ellen Stevens, Director of Disability Support Services (DSS), immediately, on campus at 957-4529 for additional disability-related educational accommodations. You are not required to disclose these disabilities to your instructor, but the instructor can only accommodate accommodation requests that officially come through the DSS.

Cell Phones

For obvious reasons, cell phones should be set to silent or vibrate during class. If you must take a phone call, please excuse yourself from the classroom.

Cheating / Plagiarism

I have a ZERO TOLERANCE policy on cheating/plagiarism, and violators will automatically fail my class. Weber State University requires that students be honest in their academic work. Academic dishonesty is viewed as an ethical issue and the violation of the principles expressed in the University's Statement of Educational
Mission. It defrauds all those who depend upon the integrity of the University, its courses, and its degrees. The term "cheating" is the act of obtaining or attempting to obtain, or helping in obtaining, credit for academic work through any dishonest, deceptive, or fraudulent means. It includes, but is not limited to:

1. Copying, in part or in whole, from another student's test or other evaluation instrument; use of any unauthorized assistance in taking quizzes, tests, or examinations.

2. Submitting work previously presented in another course, unless specifically authorized by the course instructor.

3. Obtaining or giving aid, in writing or orally, on an examination, unless specifically authorized by the instructor.

4. Doing work for another student or having one's work done by another person.

The term "plagiarism" is intentional or negligent presentation of another person's idea or product as one's own. It includes, but is not limited to:

1. Copying verbatim all or part of another person's written work without proper citation or attribution.

2. Paraphrasing ideas, theories, cases, conclusions, or research without proper attribution.

3. Representing another person's scholarly works, computer programs, case studies or artistic works as one's own.

Class Notifications / Cancellations

For all official announcements regarding this class, or any cancellations of classes at WSU SLCC Campus, I will notify you via the class webpage. I strongly suggest that you check the announcements before class.

Disputing Grades

If you feel the grade you received was not accurate, please meet with me after class or via email. All valid arguments will result in extra points. One of the most important things to realize with databases is it all depends on the specific situation.

Homework Due Dates

You are given plenty of notice to complete your homework and submit it by the posted deadline. Consequently, unless an extreme situation (death, sickness, etc) occurs, I will not accept any late assignments for full credit. I will accept late work up to one week after the due date for up to 72%. Note: These late assignments will
receive only 72% (C) of their original score (but it's better than nothing). All homework must be submitted via Canvas (http://canvas.weber.edu) by the deadline.

Software/Hardware Requirements

SQL Server 2005 Express Edition for your home computer. A fully licensed version of SQL Server is available through Weber State University's Academic Alliance, for FREE. The full version of SQL Server requires Windows Vista or XP Professional to run. If you do not have a home computer, or cannot install these products (because of speed/memory) - let me know as soon as possible, as class lab time may not be enough to complete the assignments. ORACLE will also be required for the course. The course will focus on SQL Server and ORACLE. If time permits, and the class is interested, we will use MYSQL and DB2 also.

Grading and Policies

Grading, Evaluation Policies and Procedures

Your grade will be based on individual assessment. All Percentages are subject to change. 25% of your final grade comes from attendance and participation, 50% from two exams, and 25% from a term project. Both tests are comprehensive. They will cover anything we have mentioned in class, read in the book, or did homework on. There will be a number of pop quizzes. All quiz questions will come from anything we covered or from homework that was assigned. There will be approx. 10 homework assignments and approx. 10 written papers. Papers should be no longer than 300 words. Papers, quizzes and homework assignments WILL NOT be graded. All homework will be due on Wednesday (One week after it is assigned). I will provide comments to submitted assignments that will prepare you for the exams and term project.
Grading Scale:

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Text

There is no text book for this course!!!