CS 550-001: Database Management

Fall 2017

Professor Alex Brodsky

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Prerequisites: Prerequisites

(CS 310 and 330) or (INFS 501, 515, 519, SWE 510) or equivalent

Required textbook (1 of the following):

1. Database Systems, 2nd ed. *by Kifer, Bernstein and Lewis, Addison Wesley*

Or:

2. Database Management Systems, 3-rd ed. *by Raghu Ramakrishnan & Johannes Gehrkem, McGraw-Hill*

Recommended:
Oracle 10g reference material, e.g.,
http://www.oracle.com/technology/products/database/oracle10g/index.html
On-Line Course Resources:

GMU Blackboard (courses.gmu.edu) CS 550-001 (please check frequently, at least once weekly before class for announcements)

Lectures: Innovation Hall, Room 206
Tuesday 7:20 – 10:00 pm (see schedule below)
Professor's Office Hours: Wednesday 3:30 – 5:00 PM (no need to schedule, but please call to verify before coming)

Teaching Assistant: Qingzhe Li, qli10@masonlive.gmu.edu
Office hours: Monday 4:00 -5:00 pm; Thursday 7:15-8:15pm

Requirements: The students are expected to attend all lectures and finish homework assignments on time. The assignment and due dates as noted above are approximate ones. The precise dates will be given on the Blackboard announcements. The students are also expected to attend the two in-class examinations.
Project: Important dates are listed. See project assignment for details.
Computings Resources:
General. Oracle database management system is installed in an IT&E Unix server, which is accessible online.
VPN and Oracle Account Setup and Access. Go to the website, http://labs.ite.gmu.edu/index.php/Services/Services, to follow the procedures to setup your VPN and Oracle account. First, you need to install the VPN and make it work so that you can also access the DB at home or your workplace. Then follow the procedure to get the Oracle account and access it.
Working with Oracle. Oracle 10g reference material, e.g., http://www.oracle.com/technology/products/database/oracle10g/index.html

Grading policy:The final grades assigned to the students are based on their performance on homework assignments (15%), midterm exam (33%), final exam (44%) and a semester-long project (8%). The score of 90% or higher guarantees an A grade, of 75% or higher - a B grade, of 60% or higher - a C grade. Late homework and project submission is NOT allowed. A submission is considered on time if submitted electronically on Blackboard on or before required submission date/time.

Tentative Class Schedule

Date	Topic	Reading (Ramakrishnan)	HW Assig ned	HW Due	Project Due
1/24	Intro	Chapter 1			
1/31	ER Model	Chapter 2	HA 1		
2/7	ER & Relational Model				
2/14	Relational Algebra	Chapter 4	HA2	HA 1	
2/21	Relational Calculus				
2/28	SQL-I	Chapter 5.1 – 5.7			
3/7	SQL-I cont.	Chapter 5.1 – 5.7	HA3	HA2	Project Assigned
3/14	No class – spring break				
3/21	Catch-up and review			HA3	
3/28	Midterm Exam		HA4 = proj. part 2		
4/4	SQL-II	Chapter 5.1 – 5.7			
4/11	Schema Refinement and Normalization	Chapter 15	HA5	HA4 = proj. part 2	Preliminary Project Submission
4/18	Cont.				
4/25	Advanced Topics – Big Data and	TBD			
5/2	Catch-up and Review			HA 5	
5/9	No class – Reading Day				Final Project Submission
5/16	Final Exam				