MIS 325: Database Management
Fall 2011

Room: UTC 1.130
Time: MW 9:30-10:45   MW 11:00-12:15
Unique: 03980   03985

John Mote   **TAs**
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Hours: MW 12:30-2:00   Hours: TTh 12:30-1:45 and 2:00-3:15
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Course Objectives

Databases form the backbone of virtually every modern corporate information system. The database supports the organization's highly structured, operational activities (e.g., inventory, sales, marketing, personnel) as well as the ad hoc, strategic managerial analysis of complex business decision problems (e.g., new product introduction, plant expansion, off-shoring, downsizing, stock offerings). Without a well designed and intelligently implemented database, the organization will have a difficult time remaining competitive in the marketplace.

This course provides a balanced introduction to the design and implementation of corporate database management systems. We will examine effective strategies and techniques for modeling typical corporate data collection, retrieval and analysis problems. By understanding the information needs and data flows within an organization, we can create a database solution that best serves our users. The design skills we master in this course are universal. That is, the same basic modeling skills are needed whether we are designing a database for a single-user, pc-based environment or for a thousand-user, client-server, distributed environment.

Given a database design, and the corresponding hardware and network environment, the next crucial step of the process is the implementation phase (including verification). We will use Microsoft SQL Server as our primary vehicle for mastering the database implementation process. We will also use ASP and PHP for the user-interface component of web-based databases.

Given a basic design and implementation, the final step of the process is the ongoing monitoring and revision of the database management system as the organization, the users and the database itself evolve over time. Clearly, this step never ends.

Textbook

Murach's SQL Server 2008 for Developers
Bryan Syverson and Joel Murach
Murach Books, 2008
ISBN-13: 978-1-890774-51-6
http://www.murach.com

Supplemental Readings

Additional readings will be provided throughout the semester to provide background and to help fill gaps in the lectures.

Software

You do not need to purchase any software for this class. Everything is available on the computers in the Mod and Millennium Labs. You may also download the software (Visio Pro and SQL Server) at no cost to your own Windows computer. Installation instructions will be provided during the semester.

Class Web

All of the class material (slides, assignments, sample databases, ASP/PHP applications, FAQs, grades, etc) will be available from the class web (not Blackboard):

    http://www.utexas.edu/courses/mis325

Teaching Assistants

The TAs will help students with software training and homework assignments. They will also grade some of the assignments, but not the exams.

Attendance

Roll is never taken, but attendance is strongly encouraged. No credit will be given for missed quizzes or in-class assignments.

Grading

Assignments & Quizzes   40 percent
October 5th Exam   20 percent
November 2nd Exam   20 percent
November 30th Exam   20 percent

Assignments

All assignments will be posted on the web. Most assignments will be turned in electronically. Late assignments will be penalized twenty percent per calendar day (not class day) up to the time when the graded assignments are returned to the class. In order to be fair to the other students in the class, late assignments cannot be accepted after that point.

Quizzes

A few unannounced quizzes may be given during the semester. They will count as minor homework assignments.

Exam Format

The first exam will be held in the classroom. It will be closed book.

The second and third exams will be held in the Mod Lab. They will be open book, open note, open web. You must verify that you are able to logon to the lab computers prior to the exams. If you cannot logon, then speak to the staff in the Millennium Lab.

Sample exams will be distributed prior to each exam.

Re-grades

Occasionally, assignments and exams are graded incorrectly. All requests for re-grades must be submitted within one week of the date the graded item is returned to the class.

Students with Disabilities

The University of Texas provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY.

Prerequisites

There are no formal prerequisites for MIS 325. Some students do, however, know a procedural programming language like Visual Basic. Some are learning VB this semester in MIS 304. Quite a few students know a bit about web programming (HTML, CSS, JavaScript). A handful know some SQL, but very few have a deep knowledge of the language. To repeat: There are no prereqs for this class. You will be taught everything you need to know about VB, HTML, SQL and all of the other acronym languages.

Tentative Schedule

Revisions to the schedule (as well as suggested readings, assignments, handouts, etc) will be announced in class and posted on the web.

Date	Topic
August 24th (Wed)	Course Introduction
August 29th (Mon)	Basic Database Concepts (Part 1)
August 31st (Wed)	Basic Database Concepts (Part 2)
September 7th (Wed)	Database Models & ER Diagrams (Part 1)
September 12th (Mon)	Database Models & ER Diagrams (Part 2)
September 14th (Wed)	Normalization
September 19th (Mon)	Modeling Exercise
September 21st (Wed)	SQL Introduction
September 26th (Mon)	SQL Data Definition Language (Part 1)
September 28th (Wed)	SQL Data Definition Language (Part 2)
October 3rd (Mon)	SQL Select: Basics
October 5th (Wed)	**Exam One**
October 10th (Mon)	SQL Select: Aggregation
October 12th (Wed)	SQL Select: Joins
October 17th (Mon)	SQL Select: Special Cases
October 19th (Wed)	SQL Insert, Update and Delete
October 24th (Mon)	Functions and Procs
October 26th (Wed)	ASP/PHP: Introduction
October 31st (Mon)	ASP/PHP: Basic Structure
November 2nd (Wed)	**Exam Two**
November 7th (Mon)	ASP/PHP: Drill-Down Selects (Part 1)
November 9th (Wed)	ASP/PHP: Drill-Down Selects (Part 2)
November 14th (Mon)	ASP/PHP: Multi-Table Selects
November 16th (Wed)	ASP/PHP: Inserts (Part 1)
November 21st (Mon)	ASP/PHP: Inserts (Part 2)
November 23rd (Wed)	ASP/PHP: Updates & Deletes
November 28th (Mon)	ASP/PHP: Odds & Ends
November 30th (Wed)	**Exam Three**