CMPT 354 - D100 Database Systems I

Instructor(s): John Edgar  
SFU Surrey

Calendar Objective/Description:  
Database Systems I

Instructor's Objectives:  
Almost all organizations maintain their data using a database management system (DBMS). This course provides an introduction to DBMS. We focus on the most widely used model: the relational data model. Students will become familiar with the design of database applications and use of databases. We study design tools, database modeling and query languages, including the Structured Query Language (SQL).

This class’s lectures, office hours and exams will be 100% online. To complete this class, you must have a computer on which you can install and run a DBMS as well as a stable internet connection for watching lectures (either streaming real-time, or playback after the fact), completing in-class quizzes, and in-class exams.

Prerequisites:  
see go.sfu.ca

Topics:  
- Entity-Relationship model  
- Relational data model  
- Relational algebra and calculus  
- Introduction to SQL  
- Constraints and triggers  
- Database Applications Development  
- Normalization  
- Introduction to NoSQL  
- Introduction to OLAP (time permitting)

Grading:  
To be determined in the first week of classes.

Recommended Books:  
Academic Honesty Statement::

Academic honesty plays a key role in our efforts to maintain a high standard of academic excellence and integrity. Students are advised that ALL acts of intellectual dishonesty will be handled in accordance with the SFU Academic Honesty and Student Conduct Policies (http://www.sfu.ca/policies/gazette/student.html).