CMPT 354 - D100 Database Systems I

Instructor(s): Jiannan Wang

Calendar Objective/Description: Logical representations of data records. Data models. Studies of some popular file and database systems. Document retrieval. Other related issues such as database administration, data dictionary and security.

Instructor's Objectives: In 2017, the global database market has reached over 50 billion U.S. dollars in size. Millions of web/mobile applications are using database systems to manage their data. SQL has become a prerequisite skill for being a data scientist or a data engineer. Now is the most exciting time to learn database systems.

In this first database course, we will cover database design and the use of databases in applications, with a short introduction to NoSQL and SQL-on-Hadoop. The course includes extensive coverage of the relational model, relational algebra, SQL, normalization, and database constraints. After this course, the students should have a deep understanding of how to design a database for applications and how to query and manipulate data using SQL.

Prerequisites: CMPT 225, and (MACM 101 or (ENSC 251 and ENSC 252)).

Topics:
- Database History
- Data Model
- SQL
- Database Design
- NoSQL
- SQL-on-Hadoop

Grading: Will be discussed in the first class


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