CS241 - Questions for Lab Assignment 1

1 INSTRUCTIONS

(1) This lab is not graded.

(2) Download and install MySQL. If it is not possible to install MySQL on your laptop, install SQLite.

(3) Use the commands in the text file "create.txt" to create the required tables. Use the data in the other text files to insert values into the tables.

2 QUESTIONS

Consider the following relations:

Student(snum: integer, sname: string, major: string, level: string, age: integer)

Class(name: string, meets_at: time, room: string, fid: integer)

Enrolled(snum: integer, cname: string)

Faculty (fid: integer, fname: string, deptid: integer)

The meaning of these relations is straightforward; for example, Enrolled has one record per student-class pair such that the student is enrolled in the class.

Write the following queries in SQL. No duplicates should be printed in any of the answers.

(1) Find the names and ages of all students.

(2) Find all students whose age is above 18. (List their serial numbers, names, major, level and age).

(3) Find the serial numbers of all students who have enrolled for "Database Systems".

(4) Find the names of all students who have enrolled for "Database Systems".

(5) Find the names of all faculty members who belong to the department "20".

(6) Find all classes conducted in room "R128".

(7) Find all the faculty members who use room "R128". (List their ids, names and department ids).

(8) Find the name of the faculty member who teaches "Data Structures".

(9) Find the names of all students who are enrolled in a class taught by I.Teach.

(10) Find the names of all Juniors (level = JR) who are enrolled in a class taught by I. Teach.

(11) Find the courses that Joseph Thompson has enrolled in.

(12) Find the names of students who have taken at least one course.