CS241 - Questions for Lab Assignment 4

1 INSTRUCTIONS

- This lab is graded. Each question carries 2 marks. Maximum marks: 30
- Store answers for all questions in a single text file.
- Create the following relations:
  Student(snum: integer primary key, sname: varchar(40), major: varchar(40), level: varchar(40), age: integer)
  Faculty (fid: integer primary key, fname: varchar(40), deptid: integer)
  Class(name: varchar(40) primary key, meets_at: varchar(40), room: varchar(40), fid: integer references faculty)
- There are 4 text files attached in the mail. Insert data from these text files into the corresponding created tables of previous question.

2 QUESTIONS

(1) For each level, print the level and the average age of students for that level.
(2) For all levels except JR, print the level and the average age of students for that level.
(3) For each faculty member that has taught classes, print the faculty member's name and the total number of classes she or he has taught.
(4) Find the name and number of students who have enrolled in Database Systems but not in Operating System Design.
(5) Find the average age of all students taking a course, if that course has at least 2 students.
(6) Find the ids of faculty members who are teaching more than one course.
(7) Find the ids of all students who have enrolled for more than one course.
(8) List students (their ids, names, majors , level and age) in ascending order of age.
(9) Find the names and ids of all students whose major is some branch of Engineering (Electrical Engineering, Mechanical Engineering, Computer Engineering, Civil Engineering).
(10) Count the number of students in each branch of Engineering.
(11) Find the names and ids of faculty members who either teach Data Structures or Operating System Design.
(12) Find the names and ids of instructors who are teaching a course and belonging to department id 20.
(13) Find the names and ids of students who have not enrolled for any course.
(14) Find the ages of all students whose last name begins with H and has at least 3 characters.
(15) Find the age of the youngest student who is eligible to vote (that is, at least 18 years old) for each level (standing) with at least two such students.

.