CS241 - Questions for Lab Assignment 7

1 INSTRUCTIONS

(1) This lab **is graded**.

(2) Get the answers for Lab 6 evaluated before you begin this lab.

2 QUESTION 1

Consider the following relations:

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

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

Enrolled(snum: integer, cname: string, varchar:grade)

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

(1) Write an SQL **function** that returns the number of students enrolled in a course by a given instructor. Using this function, list the names of instructors who teach more than 1 student. Use SQL command line. [5 Marks]

(2) Write an SQL **procedure** that returns the number of students who have got an F grade in a given course. Using this procedure, list the names of instructors who are teaching a course for which more than 1 student has an F grade. Use SQL command line. [5 Marks]

(3) Create a database with the given tables for employees. An employee can work in more than one department. pct_time shows the percentage of time that a given employee works in a given department. The database must prevent creating a record such that the percentage of time that an employee works for all departments is more than 100. Create a trigger for that purpose. [5 Marks]