CSC4402: Quiz 2

Following is the logical schema for the university database, describing students, instructors, departments, courses and the relationships between them. The primary key fields are underlined:

University (department, budget) describing every department in the university

Instructor (instructor\_id, name, department, salary) describing every instructor

Student: (student\_id, name, city, department) describing every student

Course: (course\_id, title, department, credit) describing every course

Takes: (student\_id, course\_id, grade) describing student taking classes

1. For each student from ‘New Orleans’, get student ID, the maximum grade and the number of courses taken by the student. Arrange the result in descending order of the maximum grade. Note: Even if a ‘New Orleans’ student does NOT take any course, the student should still appear in the selection result.
2. Get student\_id for students from ‘CS’ department and the student NEVER takes any course from ‘English’ department.
3. Get course\_id for courses which are taken by students from every department in the university. (In other words, a course is selected if every department has some student taking that course.) Hint: use "double negation" or "count" for this question.
4. For departments with budget>450000 and more than 6 instructors, get department, budget, number of employees in the department.
5. Get ID pairs for instructor pairs such that the instructors are from the same department, and more over, the first instructor in the pair has a higher salary than the second instructor in the pair.

1. Update student grade: update the grade to “A+” for students whose grade is “A”, and update the grade to “A” for students whose grade is “B”.