

CS3400 Database Systems

Quiz 3 - 11th Dec 2006

For the questions given below, write the corresponding SQL query statements. The primary keys for each of the relations are underlined.

Student (int StudentID, varchar(255) Name, char Gender, date DOB, varchar(255) Curriculum, varchar(25) Major, int Year_of_Joining)

Course (varchar(255) CourseID, varchar(255) CourseName, int Credit)

PreRequisite (varchar(255) CourseID, varchar(255) PreReqID)

CourseOffering (varchar(255) CID, varchar(25) Semester, int Year, varchar(255) Instructor)

GradeReport (int SID, varchar(255) CID, varchar(25) Sem, int Year, char(2) Grade)

The foreign key, primary key relationships:

PreRequisite (CourseID) references Course (CourseID)

PreRequisite (PreReqID) references Course (CourseID)

CourseOffering (CID) references Course (CourseID)

GradeReport (SID) references Student (StudentID)

GradeReport (CID) references Course (CourseID)

GradeReport (Sem) references CourseOffering (Semester)

GradeReport (Year) references CourseOffering (Year)

1. For each course which was offered in 'Monsoon' 2006, find the number of students who got 'F' grade.
2. Find the names of the students, their curriculum and year of joining who did a course with a pre-requisite but didn't do the pre-requisite course.
3. Find the names of the students who have always got 'A' grade in all the courses they have taken.
4. Find the names of all the 4 credit courses offered in 'Spring' 2007 in which only 'MTech' students have enrolled.

5. Insert tuples into 'GradeReport' table for all the BTech 2004 students for the course 'BTP' in 'Spring' 2007.
6. For each 6-credit course, with CourseID beginning with 'CS', offered in 'Spring' 2006, if number of students who got 'F' grade ≥ 4 , insert new tuple into PreRequisite table for this course with 'C programming' as its prerequisite.
7. Update the 'Curriculum' of all the 'BTech' students to 'MS' who have completed at least 170 credits.
8. Update the grades to 'D' of all the students who've got 'F' grade in the courses offered in 'Spring' 2006 such that they have got 'A' grade in the prerequisites of that courses.