

10 points

WORK IN TEAMS

Write the SQL statements to solve the following queries and email those queries to the instructor. OR write a brief explanation describing why the database cannot answer a particular query. Use the College database from class (PUNETID_test) as your database. Be as efficient as possible.

Email me your SQL statements in a text file script.

Use -- to provide comments to indicate your team members' names and the question number your query solves.

1. List all Students who took a course with a max size of more than 20 students (FName, LName)
2. How many professors with an 'a' in their Login are teaching a course that has a student with an 'a' in their Login enrolled (this question ignores section numbers)? (produce a single integer)
3. Run Explain on the query from 2 and, for each table involved, give an explanation of how well the keys and indexes are being used.
4. List the last two students, sorted ascending alphabetically (LName, FName, show exactly two rows).
5. List all students who are taking more than one course that is Section 2 (FName, LName)
6. List all the courses that have more than 3 students currently enrolled (Title, number of students).

Normalization

1. Given: R: ABCDE

A->B
B->CD
D->A

- a) List all Candidate Keys for R.
- b) List all Super Keys for R.
- c) What FDs can we infer?

2. Given: R: ABCDEF

A->DEF
B->C
D->C
D->F

- a) List all Candidate Keys for R.