



CS 309A- Database Management Systems

Practice



Example 1

Given a relational database schema as follows:

- ◇ LOCATION (**locld**, bldgCode , buildingName);
- ◇ FACULTY (**facld**, f_last , f_first , f_mi, f_phone, f_rank, ***locld***)
- ◇ STUDENT(**sld**, s_last, s_first, s_mi, s_address, s_city, s_state, s_zip, ***facld***)

Please write the following query in Relational Algebra



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1. List all faculties (facId) who do not have an advisee
 2. List faculty last names (f_last) for those who need to advise



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- ◇ 3. List the faculty last names (f_last) with their office building (buildingName) and all their advisee last names (s_last)

Example 2

Given a relational database schema as follows:

- ◇ SUPPLIER (**S#**, SNAME, STATUS, CITY)
- ◇ PART (**P#**, PNAME, COLOR, WEIGHT, CITY)
- ◇ PROJECT (**J#**, JNAME, CITY)
- ◇ SPJ (**S#**, **P#**, **J#**, QTY)

Please write the following queries in Relational Algebra.



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1. Find all suppliers who locate in Atlanta
 2. Find all names of those supplier who locate in Atlanta
 3. Find part names that are red or green in color.



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- ◇ 4. Find all parts that are red in color and weight more than 1 lb.

 - ◇ 5. Find the S#, SNAME, CITY of suppliers that have supplied P2.



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6. Find supplier names for suppliers who do not supply part P2.
 7. List the S# of suppliers that have supplied all the parts listed in SPJ.
 8. List the S# of suppliers who have supplied to all the projects with the project name "CAD/CAM".



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9. Find the P# of parts which are supplied to any project in London.
 10. Find the P# of parts which are supplied to all projects in London.
 11. Find the S# of suppliers who live in Atlanta but are not supplied to the project "CAD/CAM".

Thank you & Questions

