Nested Subqueries

1. Find all the courses taught in both the Fall 2009 and Spring 2010 semester.(use in clause Set membership earlier we solved this using intersect)
2. To find the courses taught in Fall 2009 semester but not in Spring 2010 semester (use not in)

Set Comparison

1. Find the names of all instructors whose salary is greater than at least one instructor in the biology department (use some clause)
2. Find the names of all instructors whose salary is greater than all instructor in the biology department (use all clause)

Test for empty relation using exists clause

Exists returns true if argument subquery is nonempty

1. Find all the courses taught in both the Fall 2009 and Spring 2010 semester.

Select course-id from section s where semester=’Fall’ and year =’2009’ and exists (select \* from section t where semester=’Spring’ and year=’2010’ and s.course\_id=T.course\_id)

1. Find all the students who have taken all the courses in biology department.

Select distinct s.id,s.sname from student s where not exists

((select couse\_id from course where dept.name=’Biology’)

Except

(select T.course\_id from takes T where s.id=t.id))