4.12)

part1:

select employee.employee\_name

from employee natural left outer join manages

where manager\_name is null;

part2:

select employee.employee\_name

from employee

where employee.employee\_name not in (

select manages.employee\_name

from manages

);

student(ID, name, dept\_name, tot\_cred)

takes(ID, course\_id, sec\_id, semester, year, grade)

section(course\_id, sec\_id, semester, year, building, room\_no, time\_slot\_id)

course(course\_id, title, dept\_name, credits)

4.14

create view tot\_credits(year, num\_credits) as

select year, sum(course.credits) as num\_credits

from takes, course

where takes.course\_id = course.course\_id

group by takes.year;