

```

1. /*4.7*/
2. create table employee
3.   (person_name char(20),
4.    street char(30),
5.    city char(30),
6.    primary key (person_name) )
7.
8. create table works
9.   (person_name char(20),
10.  company_name char(15),
11.  salary integer,
12.  primary key (person_name),
13.  foreign key (person_name) references employee(person_name),
14.  foreign key (company_name) references company(company_name))
15.
16. create table company
17.   (company_name char(15),
18.    city char(30),
19.    primary key (company_name))
20.
21. create table manages
22.   (person_name char(20),
23.    manager_name char(20),
24.    primary key (person_name),
25.    foreign key (person_name) references employee(person_name),
26.    foreign key (manager_name) references employee(person_name))
27.
28.
29.
30. /*
31. 4.9
32. 所有级别的经理的所有员工的元组也会被删除。
33. 初始删除将触发删除与经理的直接员工相对应的所有元组。
34. 这些删除将导致删除二级员工元组，依此类推，直到删除所有直接和间接员工元组。
35. */
36.
37.
38.
39.
40.
41.
42.
43.

```

```
44./*
45.4.12
46.*/
47.select employee_name
48.from employee natural left outer join manages
49.where manager_name is null
50.
51.select employee_name
52.from employee
53.where not exists
54.      (select employee_name
55.       from (manages natural join employee) as A
56.       where A.manager_name is not null)
```