HW3-2

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3.8、3.9参见上次HW3提交

3.13

Figure:

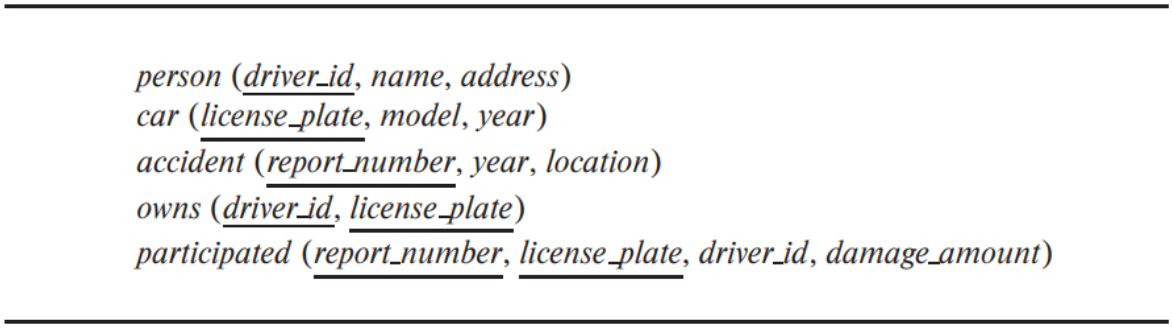

Figure 3.17 Insurance database

SQL:

```
a)
create table person
(
    driver_id varchar(99),
    name varchar(99),
    address varchar(99),
    primary key(driver_id)
)
b)
create table car
(
    license_plate varchar(99),
    model varchar(99),
    year Integer,
    primary key(license_plate)
)
c)
create table accident
(
     report_number Integer,
     location varchar(99),
     year Integer,
    primary key(report_number)
)
d)
create table owns
(
    driver_id varchar(99),
    license_plate varchar(99),
    primary key(driver_id,license_plate)
    foreign key(driver_id) references person
```

```
    foreign key(license_plate) references car
)
e)
create table participated
(
    report_number Integer,
    license_plate varchar(99),
    driver_id varchar(99),
    damage_amount Integer,
    primary key(report_number,license_plate)
    foreign key(report_number) references accident
    foreign key(license_plate) references car
)
```

3.16

Figure:

employee (*ID*, *person_name*, *street*, *city*)
works (*ID*, *company_name*, *salary*)
company (*company_name*, *city*)
manages (*ID*, *manager_id*)

Figure 3.19 Employee database.

SQL:

```
1)
select e.ID and e.person_name
from employee e, works w, company c
where e.ID = w.ID and e.city = c.city and w.company_name = c.compan_ name
2)
select P.ID and P.person_name
from employee P, employee R, manages M
where P.ID = M.ID and M.manager_id = R.ID and P.street = R.street and P.city
= R.city
3)
select e.ID and e.person_name
from works T, employee e
where salary > (select avg (salary)
                from works S
                where T.company name = S.company name
                where T.ID = e.ID)
4)
select company_name
from works group by company_name
having sum (salary) <= all (select sum (salary)
                        from works
                        group by company_name)
```