数据库概论作业 3

23.10.25

4.7

这里我把字符串长度上限都写为 N.

```sql
create table employee (
    ID int primary key,
    person_name varchar(N),
    street varchar(N),
    city varchar(N)
)

create table works (
    ID int primary key references employee,
    company_name varchar(N) references company,
    salary int,
)

create table company (
    company_name varchar(N) primary key,
    city varchar(N)
)

create table manages (
    ID int primary key references employee,
    manager_id int references employee
)
```

4.8

(a)

```sql
select distinct ID, name, sec_id, semester, year, time_slot_id
from instructor natural join section natural join teaches
group by ID, name, sec_id, semester, year, time_slot_id
having count(*) > 1
```

(b)

```sql
create assertion instructor_has_no_doppelganger check (
    unique (
        select ID, sec_id, semester, year, time_slot_id
        from teaches natural join section
    )
)
```

5.7

```
create trigger account_deleted after delete on account
referencing old row as orow
for each row
begin
    delete from depositor
    where customer_name not in (
        select customer_name
        from depositor
        where account_number != orow.account_number
    )
end
```