פתרון תרגיל 4

שימו לב שהחלפת כל שאילתיה עם שאילתת סתמית שרק מדפיס את מספר השיאלתה (למשל q1) בפלט

```sql
-- q1
select distinct "-------------------q1-------------------" from customer;

select id, fname, lname
from customer
where fname like '%%';

-- q2
select distinct "-------------------q2-------------------" from customer;

select id, fname, lname
from customer
where id > (select max(id)
            from customer
            where state = 'CA');

-- q3
select distinct "-------------------q3-------------------" from customer;

select C.id, fname, lname
from customer C
where (select min(order_date) from sales_order S where C.id = S.cust_id) >= '01-01-2005'
and (select max(order_date) from sales_order S where C.id = S.cust_id) <= '31-12-2005' limit 10;

-- q4
select distinct "-------------------q4-------------------" from customer;

select C.id, C.fname, C.lname
from customer C
where C.id not in (
    select distinct cust_id
    from sales_order
)
limit 10;

-- q5
select distinct "-------------------q5-------------------" from customer;

select distinct P.name, P.description
from product P, sales_order_items SO, sales_order S
where P.id=SO.prod_id and SO.id=S.id and S.ship_date < S.order_date;

-- q6
select distinct "-------------------q6-------------------" from customer;

select distinct P.name, P.description
from product P, sales_order_items SO, sales_order S, customer C
where P.id=SO.prod_id and SO.id=S.id and S.cust_id=C.id and C.fname like 'D%'
order by P.name, P.description;

-- q7
select distinct "-------------------q7-------------------" from customer;

select distinct C.id, fname, lname
from customer C join sales_order SO on C.id = SO.cust_id
where C.id not in (
    select distinct cust_id
    from sales_order S, sales_order_items SO, product P
    where S.id=So.id and P.id=SO.prod_id and P.name like '%shirt%'
);
```
select distinct "-----------------------------q8-----------------------------------" from customer;

select distinct c.id, c.fname, c.lname
from customer c, sales_order so
where c.id=so.cust_id and so.sales_rep=299 and
      (select count(distinct so1.sales_rep) from sales_order so1 where so1.cust_id = c.id) =1
limit 10;

select distinct "-----------------------------q9-----------------------------------" from customer;

select D.dept_id, dept_name, count(*) as count_emp, avg(salary)as average_salary
from department D, employee E
where E.dept_id=D.dept_id
group by D.dept_id, dept_name
limit 10;

select distinct "-----------------------------q10-----------------------------------" from customer;

select E.emp_id, emp_fname, emp_lname, count(*) as count_order
from sales_order S, employee E
where E.emp_id = S.sales_rep
group by E.emp_id, emp_fname, emp_lname
limit 10;

select distinct "-----------------------------q11-----------------------------------" from customer;

select max(S.order_date)
from sales_order S;

select distinct "-----------------------------q12-----------------------------------" from customer;

select C.state, count(*) as count_customer
from customer C
group by C.state
order by count(*) desc
limit 1;

select distinct "-----------------------------q13-----------------------------------" from customer;

select C.id, C.fname, C.lname, count(*) as count_orders
from customer C, sales_order SO
where C.id = SO.cust_id and C.id in (select S.cust_id
select S.cust_id
from sales_order S
where S.sales_rep=129)
group by C.id,C.fname, C.lname
limit 1;
select distinct "---------------------------" from customer;

create view sales_total as
select so.id, sol.quantity, p.unit_price as totalPrice
from sales_order so, sales_order_items sci, product p
where so.id = sci.so_id and sci.prod_id = p.id
  group by so.id;

select sum(totalPrice)
from sales_total
where id in (select id from sales_order so where so.cust_id=101);

select distinct "---------------------------" from customer;

create view emp_age as
select emp_id, emp_fname, emp_lname, birth_date, date("now")-birth_date as age
from employee;

select dept_id, avg(age) as average_age
from emp_age as e, employee as e
where e.emp_id = e.emp_id
  group by dept_id;

select distinct "---------------------------" from customer;

create table supplier ( id int not null,
  supplier_name varchar(20),
  address varchar(35),
  city varchar(20),
  country varchar(20),
  phone varchar(12),
  primary key (id) );

insert into supplier values(1, "Exotic Liquids", "45 Gilbert St.", "London", "UK", "(171) 555-2222");
iinsert into supplier values(2, "New Orleans Delights", "P.O.B 78934", "New Orleans, LA", "USA", "(100) 555-4822");
iinsert into supplier values(3, "Grandma Kellys", "707 Oxford Rd.", "Ann Arbor, MI", "USA", "(313) 555-5735");
iinsert into supplier values(4, "Tokyo Traders", "9-9 Sekimai Musashino", "Tokyo", "Japan", "(03) 555-5011");
iinsert into supplier values(5, "Cooperativa de Quesos", "Calle del Rosal 4", "Toledo", "Spain", "(98) 558-7684");

--- just checking
select * from supplier;

select distinct "---------------------------" from customer;
select distinct "John Doe" from customer;