

```

create table Company (
    id int not null unique ,
    name varchar(20),
    email varchar(20),
    primary key (id)
);

create table "order" (
    order_id int not null unique ,
    company_id int not null ,
    city varchar(20),
    primary key (order_id),
    foreign key (company_id) references company(id)
);

alter table "order" add day_of_order date;
alter table "order" add delivered_time date;

create table Package(
    order_id int not null,
    type varchar(20),
    weight int,
    delivery_time int,
    foreign key (order_id) references "order" (order_id)
);

drop table package;

create table Tracking(
    order_id int not null ,
    day date,
    place varchar(20),
    foreign key (order_id) references "order" (order_id)
);

create table Transport_type(
    id int not null unique ,
    type varchar(20),
    primary key (id)
);

create table Vihacle(
    order_id int not null,
    transport_id int not null ,
    foreign key (order_id) references "order" (order_id),
    foreign key (transport_id) references Transport_type(id)
);

create table client(
    id int not null unique ,
    order_id int not null,
    name varchar(30),
    phone_number varchar(11),
    has_contract bool,
    primary key (id),
    foreign key (order_id) references "order" (order_id)
);

alter table client drop column order_id;

create table cl_or (
    client_id int not null ,
    order_id int not null,
    foreign key (client_id) references client(id),

```

```

        foreign key (order_id) references "order"(order_id));

create table client_address(
    client_id int not null ,
    city varchar(20),
    street varchar(20),
    home_number int,
    floor int,
    apartment_number int,
    foreign key (client_id) references client(id)
);

create table payment(
    payment_id int not null unique ,
    order_id int not null ,
    method varchar(20),
    date_of_purchase date,
    amount int,
    primary key (payment_id),
    foreign key (order_id) references "order"(order_id)
);

create table card(
    payment_id int not null ,
    card_id int,
    bank varchar(20),
    foreign key (payment_id) references payment(payment_id)
);

drop table payment, card;
--
=====
==
insert into company (id, name, email) VALUES (1, 'FedEx', 'Fed@Ex.com'),
                                              (2, 'AliExpress',
                                              'Ali@express.com'),
                                              (3, 'Ebay', 'Ebay@ebay.com'),
                                              (4, 'NurDost', 'Nur@Dost.kz');

insert into "order" (order_id, company_id, city) values (1, 1, 'Washington'),
                                                         (2, 1, 'Henderson'),
                                                         (3, 2, 'Taiyuane'),
                                                         (4, 2, 'Beijing'),
                                                         (5, 3, 'Berlin'),
                                                         (6, 4, 'Almaty');

insert into "order" (order_id, company_id, city, day_of_order,
delivered_time) VALUES (7, 3, 'Rome', '2020-05-11', '2020-05-17');

update "order" set day_of_order = ('2020-05-15') where order_id = 1;
update "order" set day_of_order = ('2020-04-30') where order_id = 2;
update "order" set day_of_order = ('2020-05-21') where order_id = 3;
update "order" set day_of_order = ('2020-05-30') where order_id = 4;
update "order" set day_of_order = ('2020-05-20') where order_id = 5;
update "order" set day_of_order = ('2020-05-10') where order_id = 6;

update "order" set delivered_time = ('2020-05-21') where order_id = 1;
update "order" set delivered_time = ('2020-05-05') where order_id = 2;
update "order" set delivered_time = ('2020-06-11') where order_id = 3;
update "order" set delivered_time = ('2020-06-01') where order_id = 4;
update "order" set delivered_time = ('2020-05-30') where order_id = 5;
update "order" set delivered_time = ('2020-05-19') where order_id = 6;

insert into package (order_id, type, weight, delivery_time) values (1, 'Small

```

```

Box', 1.5, 6),
(2, 'Flat Envelope',
0.2, 5),
(3, 'Medium Box', 10,
20),
(4, 'Medium Box', 7,
3),
(5, 'Small Box', 2,
10),
(6, 'Big Box', 20,
9),
(7, 'Flat Envelope',
0.1, 6);

insert into tracking (order_id, day, place) values (1, '2020-05-15',
'Washington'),
(1, '2020-05-17',
'Salem'),
(1, '2020-05-21',
'Sacramento');

insert into tracking (order_id, day, place) values (2, '2020-04-30',
'Henderson'),
(2, '2020-05-02', 'Carson
City'),
(2, '2020-05-05',
'Sacramento'),
(3, '2020-05-21',
'Taiyuane'),
(3, '2020-05-31',
'Beijing'),
(3, '2020-06-03',
'Beijing'),
(3, '2020-06-11',
'Harbin'),
(4, '2020-05-30',
'Beijing'),
(4, '2020-06-01', 'Nur-
sultan'),
(5, '2020-05-20',
'Berlin'),
(5, '2020-05-30',
'Milan'),
(6, '2020-05-10',
'Almaty'),
(6, '2020-05-19', 'Nur-
sultan');

insert into tracking values (7, '2020-05-11', 'Rome'),
(7, '2020-05-14', 'Neapole'),
(7, '2020-05-17', 'Milan');

drop table tracking;

insert into transport_type (id, type) VALUES (1, 'Truck'),
(2, 'Plain');

insert into vihacle (order_id, transport_id) VALUES (1, 1),
(2, 1),
(3, 1),

```

```

(4, 2),
(5, 1),
(6, 1);

insert into vihacle values (7, 1);

insert into client (id, order_id, name, phone_number, has_contract) VALUES
(1, 1, 'John Snow', '840000000000', true),
(2, 2, 'Helena Karter', '840000000001', false),
(3, 3, 'Chan Li', '830000000000', false),
(4, 4, 'Arailym Oral', '870000000000', true),
(5, 5, 'Giorno Giovanni', '850000000000', true),
(6, 6, 'Nurzhan Samatov', '870000000001', false);

insert into cl_or (client_id, order_id) values
(1, 1),
(2, 2),
(3, 3),
(4, 4),
(5, 5),
(6, 6),
(5, 7);

insert into client_address (client_id, city, street, home_number, floor,
apartment_number) VALUES
(1, 'Sacramento', 'Vegas st', 52, NULL, NULL),
(2, 'Sacramento', 'Vegas st', 212, 3, 14),
(3, 'Harbin', 'Lanzhou', 11, 2, 6),
(4, 'Nur-sultan', 'Auezov', 152, Null, Null),
(5, 'Milan', 'Cesare', 35, 6, 45),
(6, 'Nur-sultan', 'Auezov', 163, 8, 67);

insert into payment (payment_id, order_id, method, date_of_purchase, amount)
VALUES
(1, 1, 'cash', '2020-05-21 00:00:00', 24),
(2, 2, 'card', '2020-05-05 00:00:00', 34),
(3, 3, 'card', '2020-06-11 00:00:00', 15),
(4, 4, 'cash', '2020-06-01 00:00:00', 56),
(5, 5, 'card', '2020-05-30 00:00:00', 26),
(6, 6, 'cash', '2020-05-19 00:00:00', 20);

alter table payment drop column client_id;
alter table payment add order_id int;

update payment set order_id = 1 where date_of_purchase = '2020-05-21';
update payment set order_id = 2 where date_of_purchase = '2020-05-05';
update payment set order_id = 3 where date_of_purchase = '2020-06-11';
update payment set order_id = 4 where date_of_purchase = '2020-06-01';
update payment set order_id = 5 where date_of_purchase = '2020-05-30';
update payment set order_id = 6 where date_of_purchase = '2020-05-19';

insert into payment values (7, 7, 'cash', '2020-05-17', 34);

insert into card (payment_id, card_id, bank) values (2, 1, 'Visa'),
(3, 2, 'Guanzhao'),
(5, 3, 'Neapole');

-----
--1
select distinct client.name from client, cl_or, "order", vihacle
where client.id = cl_or.client_id and cl_or.order_id = "order".order_id and
"order".order_id = Vihacle.order_id
and Vihacle.transport_id = 1;

```

```

create view broken as
select order_id, place, count(day) from tracking t group by order_id, place;

drop view broken;

select client.name from client, broken, cl_or c where
client.id = c.client_id and c.order_id = broken.order_id and broken.count >
1;

select "order".order_id from "order", broken, vihacle where "order".order_id
= Vihacle.order_id and Vihacle.transport_id = 1
and "order".delivered_time
not in
(select
"order".delivered_time from "order" o, broken b where
o.order_id =
b.order_id and b.count > 2);

--2
create view client_cnt as
select client_id, count(order_id) as cnt from cl_or
group by client_id;

drop view client_cnt;

select client.name from client, client_cnt c where
c.client_id = client.id and c.cnt in
(select max(cnt) from client_cnt);

--3
select client.id, client.name from client, payment where
client.id = payment.client_id and payment.amount
in (select max(amount) from payment
group by date_of_purchase);

--4
create view V1 as
select street, count(street) as cnt from client_address
group by street;

select street from V1 where cnt in (select max(cnt) from v1);

--5
select o.order_id from "order" o, package p where p.order_id = o.order_id and
o.delivered_time > o.day_of_order + p.delivery_time;

--6
select distinct client.name, client_address.city, client_address.street,
client_address.home_number, client_address.apartment_number,
payment.amount
from client, client_address, payment, cl_or
where client.id = client_address.client_id and cl_or.order_id =
payment.order_id and cl_or.client_id = client.id;

```