Запросы на создание таблиц

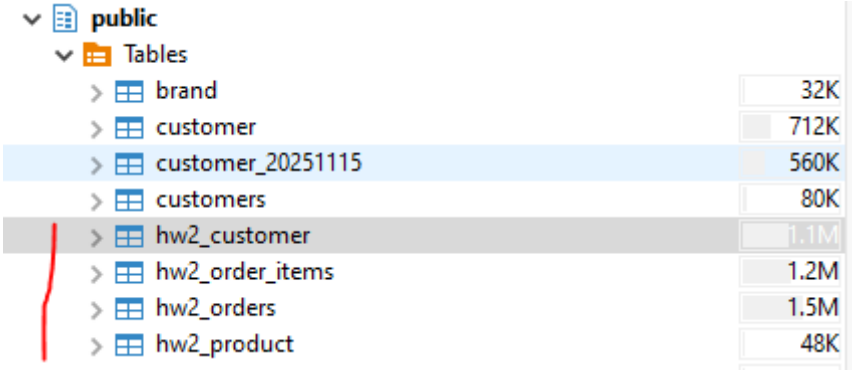
```sql
create table hw2_customer (
     customer_id int primary key
    ,first_name varchar
    ,last_name varchar
    ,gender varchar
    ,DOB date
    ,job_title varchar
    ,job_industry_category varchar
    ,wealth_segment varchar
    ,deceased_indicator varchar
    ,owns_car varchar
    ,address varchar
    ,postcode int
    ,state varchar
    ,country varchar
    ,property_valuation varchar
)

create table hw2_product (
    product_id int
    ,brand varchar
    ,product_line varchar
    ,product_class varchar
    ,product_size varchar
    ,list_price float
    ,standard_cost float
)

create table hw2_orders (
    order_id int primary key
    ,customer_id int
    ,order_date date
    ,online_order bool
    ,order_status varchar
)

create table hw2_order_items (
    order_item_id int
    ,order_id int
    ,product_id int
    ,quantity int
    ,item_list_price_at_sale float
    ,item_standard_cost_at_sale float
);
```

Таблицы созданы:



Запрос 1. Вывести все уникальные бренды, у которых есть хотя бы один продукт со стандартной стоимостью выше 1500 долларов, и который был продан как минимум 1000 раз (суммарное количество)

```sql
select p.brand
from public.hw2_product p
join public.hw2_order_items oi on p.product_id = oi.product_id
where p.standard_cost > 1500
group by p.brand
having sum (oi.quantity) >= 1000
```

hw2_product 1

select p.brand from public.hw2_product p join public.hw2_o | Enter a SQL expression to filter results (use Ctrl+Space)

	brand
1	OHM Cycles
2	Trek Bicycles
3	Solex
4	Giant Bicycles

Запрос 2. Для каждого дня в диапазоне с 2017-04-01 по 2017-04-09 включительно вывести количество подтвержденных онлайн-заказов и количество уникальных клиентов, совершивших эти заказы

```sql
select order_date
    ,count (order_id) as order_count
    ,count (distinct customer_id) as customer_count
from public.hw2_orders
where order_date between '2017-04-01' and '2017-04-09'
group by (order_date)
order by (order_date)
```

hw2_orders 1

select order_date ,count (order_id) as order_count ,count (di | Enter a SQL expression to filter res

	order_date	order_count	customer_count
1	2017-04-01	61	61
2	2017-04-02	61	61
3	2017-04-03	44	44
4	2017-04-04	62	61
5	2017-04-05	65	64
6	2017-04-06	59	58
7	2017-04-07	57	57
8	2017-04-08	65	65
9	2017-04-09	67	66

Запрос 3. Вывести профессии для клиентов, которые: находятся в сфере 'IT' И их профессия начинается с Senior, находятся в сфере 'Financial Services' и их профессия начинается с Lead. При этом для обоих пунктов учесть, что возраст клиентов должен быть старше 35 лет. Использовать UNION ALL для объединения 2 пунктов

```sql
select job_title
from public.hw2_customer
where job_industry_category = 'IT'
    and job_title like 'Senior%'
    and extract (year from age('2017-01-01'::date, dob)) > 35
union all
select job_title
from public.hw2_customer
where job_industry_category = 'Financial Services'
    and job_title like 'Lead%'
    and extract(year from age('2017-01-01'::date, dob)) > 35
--нет ни одного из финансов
```

Results 1

select job_title from public.hw2_customer where job_industr | Enter a SQL expression to filter resu

	job_title
1	Senior Sales Associate
2	Senior Developer

Запрос 4. Вывести бренды, которые были куплены клиентами из сферы Financial Services, но НЕ были куплены клиентами из сферы IT

```sql
select distinct p.brand
from public.hw2_order_items oi
join public.hw2_orders o on oi.order_id = o.order_id
join public.hw2_product p on oi.product_id  = p.product_id
join public.hw2_customer c on o.customer_id = c.customer_id
where c.job_industry_category = 'Financial Services'
    and p.brand not in (
        select distinct p2.brand
        from public.hw2_order_items oi2
        join public.hw2_orders o2 on oi2.order_id = o2.order_id
        join public.hw2_product p2 on oi2.product_id  = p2.product_id
        join public.hw2_customer c2 on o2.customer_id = c2.customer_id
        where c2.job_industry_category = 'IT'
    )
```

hw2_product 1

select distinct p.brand from public.hw2_order_items oi join p | Enter a SQL expression to filter results (use Ctrl+Space)

	brand

Запрос 5. Вывести 10 клиентов (ID, имя, фамилия), которые совершили наибольшее количество онлайн-заказов (в штуках) брендов Giant Bicycles, Norco Bicycles, Trek Bicycles, при условии, что они активны и имеют оценку имущества (property_valuation) выше среднего по их штату

```sql
select c.customer_id, c.first_name, c.last_name, state, count(o.order_id) as online_order_count
from public.hw2_customer c
join public.hw2_orders o on c.customer_id = o.customer_id
join public.hw2_order_items oi on o.order_id = oi.order_id
join public.hw2_product p on oi.product_id  = p.product_id
where
    c.deceased_indicator = 'N'
    and o.online_order = true
    and p.brand in ('Giant Bicycles', 'Norco Bicycles', 'Trek Bicycles')
    and c.property_valuation > (
        select avg (c2.property_valuation)
        from public.hw2_customer c2
        where c2.state = c.state
        )
group by c.customer_id, c.first_name, c.last_name
order by online_order_count desc
limit 10
```

hw2_customer 1

select c.customer_id, c.first_name, c.last_name, state, count(Enter a SQL expression to filter results (use Ctrl+Space)

	customer_id	first_name	last_name	state	online_order_count
1	714	Burtie	Scintsbury	QLD	41
2	1,480	Bird	Diess	NSW	40
3	1,640	Erie	Worswick	NSW	34
4	2,240	Niall	Hallifax	NSW	30
5	1,817	Jozef	Frizzell	NSW	27
6	3,326	Wes	Crotch	NSW	27
7	3,375	Thorsten	Gregon	VIC	27
8	2,358	Ave	Peatt	NSW	26
9	3,251	Cammie	Edridge	VIC	26
10	86	Job	Sleney	New South Wales	26

Запрос 6. Вывести всех клиентов (ID, имя, фамилия), у которых нет подтвержденных онлайн-заказов за последний год, но при этом они владеют автомобилем и их сегмент благосостояния не Mass Customer.

```sql
select c.customer_id, c.first_name, c.last_name
from public.hw2_customer c
join public.hw2_orders o on c.customer_id = o.customer_id
where
    o.online_order in (true, null)
    and o.order_status = 'Cancelled'
    or o.online_order = null
    and c.owns_car = 'Yes'
    and c.wealth_segment not in ('Mass Customer')
```

hw2_customer 1

select c.customer_id, c.first_name, c.last_name from public.l | Enter a SQL expression to filter results (use Ctrl+Space)

	customer_id	first_name	last_name
1	2,801	Danella	Lines
2	1,019	Ignazio	Milby
3	2,035	Kylie	Terese
4	2,440	Lethia	Juanes
5	2,101	Maryann	
6	1,186	Brantley	Cecchi
7	2,372	Jim	Shoppee
8	2,651	Silvan	Ellison
9	2,629	Nomi	Bushell
10	3,040	Kameko	Kinrade
11	433	Reinhard	Jubert
12	2,929	Winny	Cakes
13	3,114	Judah	Prime

Refresh | Save | Cancel | Export data | 200 | 97 | 97 row(s) fetched - 0.0s (0.0s fetch), on 2025-11-23 at 09:56:22

Запрос 7. Вывести всех клиентов из сферы IT (ID, имя, фамилия), которые купили 2 из 5 продуктов с самой высокой list_price в продуктовой линейке Road

```sql
with top5road as (
    select product_id
    from public.hw2_product
    where product_line = 'Road'
    order by list_price desc
    limit 5
),

buyerlist as (
    select c.customer_id, c.first_name, c.last_name, oi.product_id
    from public.hw2_customer c
    join public.hw2_orders o on c.customer_id = o.customer_id
    join public.hw2_order_items oi on o.order_id = oi.order_id
    where c.job_industry_category = 'IT'
        and oi.product_id in (select product_id from top5road)
)

select customer_id, first_name, last_name
from (
    select customer_id, first_name, last_name, count (distinct product_id) as
    unique_product_count
    from buyerlist
    group by customer_id, first_name, last_name
) sub
where unique_product_count >=2;
```

hw2_customer 1

with top5road as (select product_id from public.hw2_produ | Enter a SQL expression to filter results (use Ctrl+Space)

	customer_id	first_name	last_name
1	799	Harland	Spilisy
2	983	Shaylyn	Riggs
3	1,683	Brenn	Bacon
4	1,791	Ninon	Van Der Hoog
5	1,820	Yard	Teeney
6	1,887	Kynthia	Purcer
7	3,406	Lucy	Lackmann

Refresh | Save | Cancel | Export data | 200 | 7 | 7 row(s) fetched - 0.0s, on 2025-11-23 at 09:58:01

Запрос 8. Вывести клиентов (ID, имя, фамилия, сфера деятельности) из сферы IT или Health, которые совершили не менее 3 подтвержденных заказов в период 2017-01-01 по 2017-03-01 и при этом их общий доход от этих заказов превышает 10000 долларов.

Разделить вывод на две группы (IT и Health) с помощью UNION

```sql
select c.customer_id, c.first_name, c.last_name, c.job_industry_category
from public.hw2_customer c
join (
    select o.customer_id, count (distinct o.order_id) as approved_orders,
        sum (oi.quantity * oi.item_list_price_at_sale) as total_revenue
    from public.hw2_orders o
    join public.hw2_order_items oi on o.order_id = oi.order_id
    where o.order_status = 'Approved'
        and o.order_date >= '2017-01-01'
        and o.order_date <= '2017-03-01'
    group by o.customer_id
)
agg on c.customer_id = agg.customer_id
where c.job_industry_category = 'IT'
    and agg.approved_orders >= 3
    and agg.total_revenue > 10000

union

select c.customer_id, c.first_name, c.last_name, c.job_industry_category
from public.hw2_customer c
join (
    select o.customer_id, count (distinct o.order_id) as approved_orders,
        sum (oi.quantity * oi.item_list_price_at_sale) as total_revenue
    from public.hw2_orders o
    join public.hw2_order_items oi on o.order_id = oi.order_id
    where o.order_status = 'Approved'
        and o.order_date >= '2017-01-01'
        and o.order_date <= '2017-03-01'
    group by o.customer_id
)
agg on c.customer_id = agg.customer_id
where c.job_industry_category = 'Health'
    and agg.approved_orders >= 3
    and agg.total_revenue > 10000
```