

```

-- Вывести все уникальные бренды, у которых есть хотя бы один продукт со стандартной стоимостью выше 1500 долларов, и суммарными продажами не менее 1000 единиц
select distinct p.brand
from product p
where p.standard_cost > 1500
and (
    select sum(oi.quantity)
    from product p2
    left join order_items oi on p2.product_id = oi.product_id
    ) > 1000;

```

product 1 X

select distinct p.brand from product p where p.standard_cost > 1500 and (select sum(oi.quantity) from product p2 left join order_items oi on p2.product_id = oi.product_id) > 1000; Enter a SQL expression to filter results (use Ctrl+Space)

AZ brand
OHM Cycles
Trek Bicycles
Solex
Giant Bicycles

Value X

Text

OHM Cycles

```

-- 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
with dates as (
    select *
    from orders o
    where o.online_order = true and o.order_status = 'Approved'
    and o.order_date::date between '2017-04-01' and '2017-04-09'
)
select d.order_date::date, count(distinct d.order_id), count(distinct d.customer_id)
from dates d
left join customer c on c.customer_id = d.customer_id
group by d.order_date::date;

```

Results 1 X

with dates as (select * from orders o where o.online_order = true and o.order_status = 'Approved' and o.order_date::date between '2017-04-01' and '2017-04-09') select d.order_date::date, count(distinct d.order_id), count(distinct d.customer_id) from dates d left join customer c on c.customer_id = d.customer_id group by d.order_date::date; Enter a SQL expression to filter results (use Ctrl+Space)

order_date	123 count	123 count
2017-04-01	37	37
2017-04-02	29	29
2017-04-03	27	27
2017-04-04	32	32
2017-04-05	33	32
2017-04-06	36	36
2017-04-07	24	24
2017-04-08	33	33
2017-04-09	30	30

Value X

2017-04-01

```

-- Вывести профессии клиентов:
-- из сферы IT, чья профессия начинается с Senior;
-- из сферы Financial Services, чья профессия начинается с Lead.
-- Для обеих групп учитывать только клиентов старше 35 лет. Объединить выборки с помощью UNION ALL.

select customer_id, first_name, last_name, job_industry_category, job_title, c."DOB"
from customer c
where c.job_industry_category = 'IT'
and c.job_title LIKE 'Senior%'
union all
select customer_id, first_name, last_name, job_industry_category, job_title, c."DOB"
from customer c
where c.job_industry_category = 'Financial Services'
and c.job_title LIKE 'Lead%';

```

Results 1 X

select customer_id, first_name, last_name, job_industry_category, job_title, c."DOB" from customer c where c.job_industry_category = 'IT' and c.job_title LIKE 'Senior%' union all select customer_id, first_name, last_name, job_industry_category, job_title, c."DOB" from customer c where c.job_industry_category = 'Financial Services' and c.job_title LIKE 'Lead%'; Enter a SQL expression to filter results (use Ctrl+Space)

123 customer_id	AZ first_name	AZ last_name	AZ job_industry_category	AZ job_title	AZ DOB
290	Giorgio	Kevane	IT	Senior Sales Associate	
685	Booth	Birkin	IT	Senior Developer	
1,418	Valaria	Hugh	IT	Senior Sales Associate	1976-11-29
2,039	Laureen	Blower	IT	Senior Developer	1978-03-26
3,151	Thorn	Choffin	IT	Senior Developer	
3,222	Caralie	Sellors	IT	Senior Editor	

Value X

290

```

-- Вывести бренды, которые были куплены клиентами из сферы Financial Services, но не были куплены клиентами из сферы IT.
with finServicesClient as(
  select *
  from customer c
  where c.job_industry_category = 'Financial Services'
),
orders_id as (
  select *
  from finServicesClient as fsc
  left join orders o on fsc.customer_id = o.customer_id
),
product_ids as(
  select oi.product_id, oids.job_industry_category
  from orders_id as oids
  left join order_items oi on oids.order_id = oi.order_id
)
select distinct p.brand, pids.job_industry_category
from product p
left join product_ids as pids on p.product_id = pids.product_id;

```

product(+) 1 X

with finServicesClient as select * from customer c where c.job_industry_category = 'Financial Services'

	AZ brand	AZ job_industry_category	Value
1	Solex	Financial Services	
2	Norco Bicycles	Financial Services	
3	Trek Bicycles	Financial Services	
4	Giant Bicycles	Financial Services	
5	WeareA2B	Financial Services	
6	OHM Cycles	Financial Services	
7		Financial Services	

Text

Solex

```

-- Вывести 10 клиентов (ID, имя, фамилия), которые совершили наибольшее количество онлайн-заказов (в штуках) брендов Giant Bicycles, Norco Bicycles, Trek Bicycles, при условии, что их среднее значение оценки (avg_val) больше 4.0.
with state_avg as (
  select c.state, avg(c.property_valuation) as avg_val
  from customer c
  where c.property_valuation is not null
  group by c.state
),
online_orders as (
  select c.customer_id, c.first_name, c.last_name, c.property_valuation, c.state, count(o.order_id) as online_count
  from customer c
  join orders o on c.customer_id = o.customer_id
  join order_items oi on o.order_id = oi.order_id
  join product p on oi.product_id = p.product_id
  where o.online_order = true
  and p.brand in ('Giant Bicycles', 'Norco Bicycles', 'Trek Bicycles')
  and c.property_valuation > (
    select avg_val
    from state_avg sa
    where sa.state = c.state
  )
  group by c.customer_id, c.first_name, c.last_name, c.property_valuation, c.state
)
select oo.customer_id, oo.first_name, oo.last_name, oo.online_count
from online_orders oo
order by oo.online_count desc
limit 10;

```

customer 1 X

with state_avg as select c.state, avg(c.property_valuation) as avg_val from customer c where c.property_valuation is not null group by c.state

	123 customer_id	AZ first_name	AZ last_name	123 online_count	Value
1	714	Burtie	Scintsbury	41	
2	1,480	Bird	Diess	40	
3	1,640	Erie	Worswick	34	
4	2,240	Niall	Hallifax	30	
5	1,817	Jozef	Frizzell	27	
6	3,326	Wes	Crotch	27	
7	3,375	Thorsten	Gregon	27	
8	2,358	Ave	Peatt	26	
9	3,251	Cammie	Edridge	26	
10	86	Job	Sleney	26	

Text

Record

714

```

-- Вывести всех клиентов (ID, имя, фамилия), у которых нет подтвержденных онлайн-заказов за последний год, но при этом они владеют автомобилем и их сегмент
with online_orders_on_last_year as (
  select distinct c.customer_id
  from customer c
  join orders o on c.customer_id = o.customer_id
  where o.online_order = true
  and o.order_status = 'Approved'
  and date_trunc('year', o.order_date::date) = '2017-12-31'
),
customers_on_last_year as (
  select
    c.customer_id,
    c.first_name,
    c.last_name
  from customer c
  where c.owns_car = 'Yes'
  and c.wealth_segment not in ('Mass Customer')
  and c.customer_id not in (
    select customer_id
    from online_orders_on_last_year
  )
)
select
  c_last.customer_id,
  c_last.first_name,
  c_last.last_name
from customers_on_last_year c_last;

```

customer 1 X

with online_orders_on_last_year as (select distinct custom

	customer_id	first_name	last_name
1	5	Sheila-kathryn	Calton
2	6	Curr	Duckhouse
3	7	Fina	Merali
4	9	Mala	Lind
5	13	Gabriele	Norcross
6	17	Heath	Faraday
7	21	Mile	Cammocke
8	23	Olav	Polak
9	28	Fee	Zellmer
10	30	Darrick	Helleckas
11	31	Star	Praton

Value X

5

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-- Вывести всех клиентов из сферы 'IT' (ID, имя, фамилия), которые купили 2 из 5 продуктов с самой высокой list_price в продуктовой линейке Road.
with road_products as (
  select p.product_id, p.list_price
  from product p
  where product_line = 'Road'
),
customers_orders as (
  select distinct c.customer_id, c.first_name, c.last_name, oi.product_id
  from customer c
  join orders o on c.customer_id = o.customer_id
  join 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 road_products
  )
)
select co.customer_id, co.first_name, co.last_name
from customers_orders co
group by customer_id, first_name, last_name
having count(distinct co.product_id) >= 2 and count(distinct co.product_id) <= 5;

```

customer 1 X

with road_products as (select p.product_id, p.list_price from

	customer_id	first_name	last_name
1	22	Deeanne	Durtnell
2	34	Jephthah	Bachmann
3	64	Gerek	Yve
4	83	Kerr	Simmell
5	144	Jory	Barrabeale
6	168	Reggie	Broggetti
7	240	Gavin	Fawks
8	249	D'arcy	Slay
9	255	Keeley	Kruger
10	290	Giorgio	Kevane
11	308	Iver	Dobsons
12	324	Franz	Lyptrit
13	412	Evanne	Feechum
14	429	Berny	Bold
15	441	Felicle	Beneze

Value X

22

```

-- Вывести клиентов (ID, имя, фамилия, сфера деятельности) из сфер IT или Health, которые совершили не менее 3 подтвержденных заказов в пер
-- Разделить вывод на две группы (IT и Health) с помощью UNION.
with customer_orders as (
  select c.customer_id, c.first_name, c.last_name, c.job_industry_category,
         count(o.order_id) as count,
         sum(oi.quantity * oi.item_list_price_at_sale) as total
  from customer c
  join orders o on c.customer_id = o.customer_id
  join order_items oi on o.order_id = oi.order_id
  where c.job_industry_category in ('IT', 'Health')
  and o.order_status = 'Approved'
  and o.order_date between '2017-01-01' and '2017-03-01'
  group by c.customer_id, c.first_name, c.last_name, c.job_industry_category
  having
    count(o.order_id) >= 3
    and sum(oi.quantity * oi.item_list_price_at_sale) > 10000
)
select *
from (
  select co.customer_id, co.first_name, co.last_name, co.job_industry_category
  from customer_orders co
  where job_industry_category = 'IT'
union
  select co2.customer_id, co2.first_name, co2.last_name, co2.job_industry_category
  from customer_orders co2
  where job_industry_category = 'Health'
) as res
order by res.job_industry_category

```

Results 1 X

with customer_orders as (select c.customer_id, c.first_name, c.last_name, c.job_industry_category, count(o.order_id) as count, sum(oi.quantity * oi.item_list_price_at_sale) as total from customer c join orders o on c.customer_id = o.customer_id join order_items oi on o.order_id = oi.order_id where c.job_industry_category in ('IT', 'Health') and o.order_status = 'Approved' and o.order_date between '2017-01-01' and '2017-03-01' group by c.customer_id, c.first_name, c.last_name, c.job_industry_category having count(o.order_id) >= 3 and sum(oi.quantity * oi.item_list_price_at_sale) > 10000) select * from (select co.customer_id, co.first_name, co.last_name, co.job_industry_category from customer_orders co where job_industry_category = 'IT' union select co2.customer_id, co2.first_name, co2.last_name, co2.job_industry_category from customer_orders co2 where job_industry_category = 'Health') as res order by res.job_industry_category

	customer_id	first_name	last_name	job_industry_category
1	173	Ebba	Hanselmann	Health
2	2,172	Emmery	Angrock	Health
3	590	Ddene	Burleton	Health
4	2,292	Christie	MacClure	Health
5	2,353	Lyn	Luquet	Health
6	2,788	Melantha	Pickburn	Health
7	2,815	Emery	Carlett	Health
8	607	Adelaida	Redmond	Health
9	2,992	Crystal	Assur	Health
10	2,166	Benson	Blayman	Health