# Challenge 3 - Customer Insights



#### **TABLES:**

#### customers

customer_id	first_shop	age	rewards	can_email
1	2022-03-20	23	yes	no
2	2022-03-25	26	no	no
3	2022-04-06	32	no	no
4	2022-04-13	25	yes	yes
5	2022-04-22	49	yes	yes
6	2022-06-18	28	yes	no
7	2022-06-30	36	no	no
8	2022-07-04	37	yes	yes

### orders

order_id	customer_id	date_shop	sales_channel	country_id
1	1	2023-01-16	retail	1
2	4	2023-01-20	retail	1
3	2	2023-01-25	retail	2
4	3	2023-01-25	online	1
5	1	2023-01-28	retail	3
6	5	2023-02-02	online	1
7	6	2023-02-05	retail	1
8	3	2023-02-11	online	3

### baskets

order_id	product_id
1	1
1	2
1	5
2	4
3	3
4	2
4	1
5	3
5	5
6	4
6	3
6	1
7	2
7	1
8	3
8	3

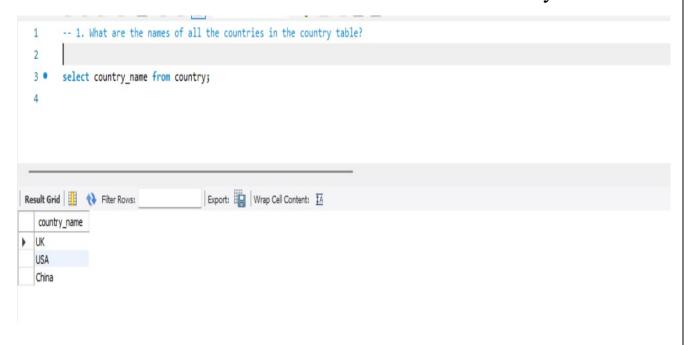
## products

product_id	category	price
1	food	5.99
2	sports	12.49
3	vitamins	6.99
4	food	0.89
5	vitamins	15.99

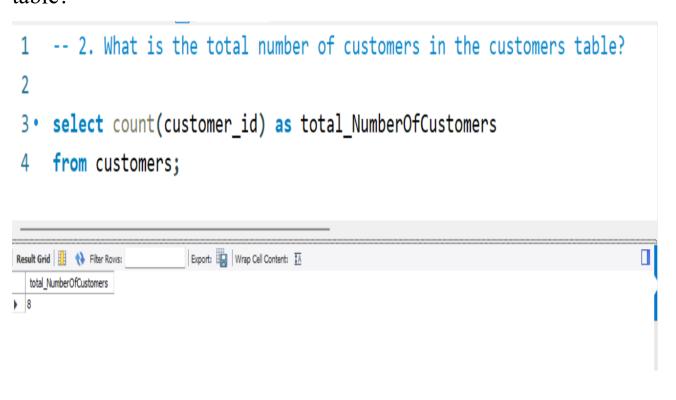
### country

country_id	country_name	head_office
1	UK	London
2	USA	New York
3	China	Beijing

1. What are the names of all the countries in the country table?



2. What is the total number of customers in the customers table?



3. What is the average age of customers who can receive marketing emails (can email is set to 'yes')?

4. How many orders were made by customers aged 30 or older?

```
-- How many orders were made by customers aged 30 or older?
 2 • ♥ with cte as (
      select c.age,count(o.order id) as Tt order from customers c
      join orders o on c.customer id = o.customer id
 4
      group by c.customer id
 5
 6
      select sum(Tt_order) as Total_orders from cte where age>=30;
 7
 8
 9
10
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Result Grid Filter Rows:
 Total_orders
3
```

5. What is the total revenue generated by each product category?

```
1 -- 5. What is the total revenue generated by each product category?

2 3. select p.category ,sum(price) from products p

4 where category='food'

5 group by p.category;

Result Grid ** Filter Rows:

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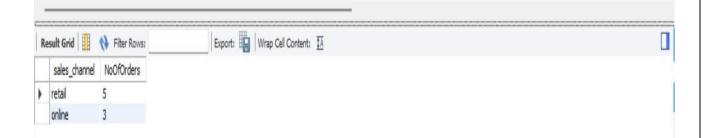
6. What is the average price of products in the 'food' category?

```
1 -- 6. What is the average price of products in the 'food' category?
2
3 • select avg(price) as avgProductPrice from products where category='food';
4

Result Grid 
Result 
Re
```

7. How many orders were made in each sales channel (sales channel column) in the orders table?

```
1 -- 7. How many orders were made in each sales channel (sales_chann
2
3 * select sales_channel, count(order_id) as NoOfOrders from orders
4 group by sales_channel;
```



8. What is the date of the latest order made by a customer who can receive marketing emails?

```
-- 8.What is the date of the latest order made by a customer who

select max(o.date_shop) from orders o

join customers c

on c.customer_id=o.customer_id

where c.can_email='yes'

Result Grid ** Filter Rows: ______ Export: ** Wrap Cell Content: ** I
```

9. What is the name of the country with the highest number of orders?

```
-- 9. What is the name of the country with the highest number of orders?
 2
 3 • with cte as
      select c.country_name ,count(o.order_id)as orders1 from orders o
 5
 6
      join country c
     on c.country id = o.country id
 7
      group by country_name
 8
 9
      select * from cte where orders1 =(select max(orders1) from cte)
10
11
Result Grid Filter Rows:
                          Export: Wrap Cell Content: IA
  country_name orders1
▶ UK
```

10. What is the average age of customers who made orders in the 'vitamins' product category?

```
-- 10. What is the average age of customers who made orders in the 'vitamins' product category?
 2
      select avg(c.age) as avg age from customers c
 4 ⊖ join (
 5
      select distinct o.customer_id from orders o
    where o.order id IN (select distinct order id from baskets
      where product id IN (select product id from products where category ='vitamins'))
 7
     ) r
 8
      on c.customer id=r.customer id
10
                                                                                                     Export: Wrap Cell Content: IA
32,5000
```