Challenge 3 - Customer Insights

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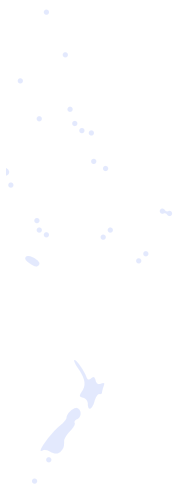
1.What are the names of all the countries in the country table?
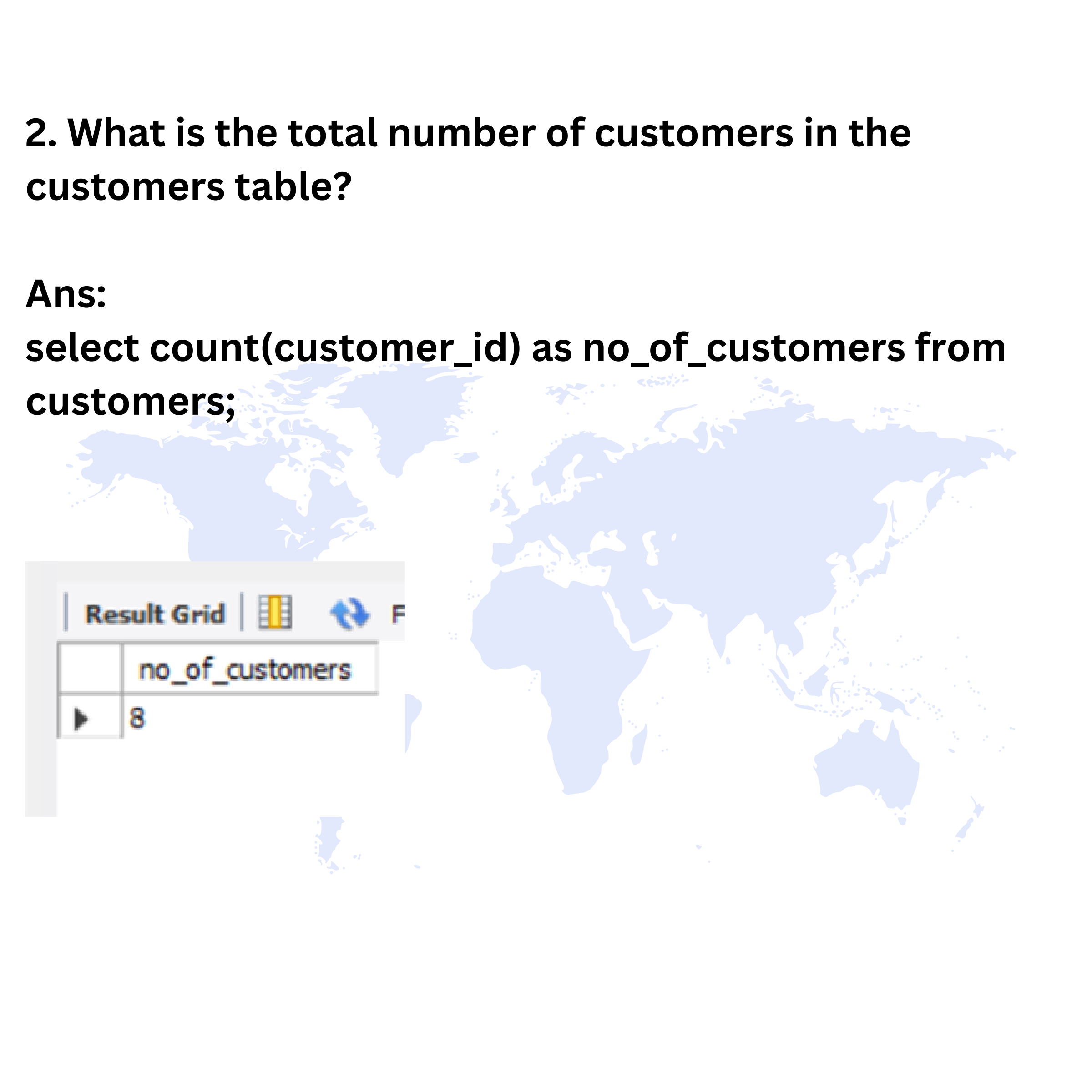
Ans:

select country_name from country;

	country_name
▶	UK
	USA
	China
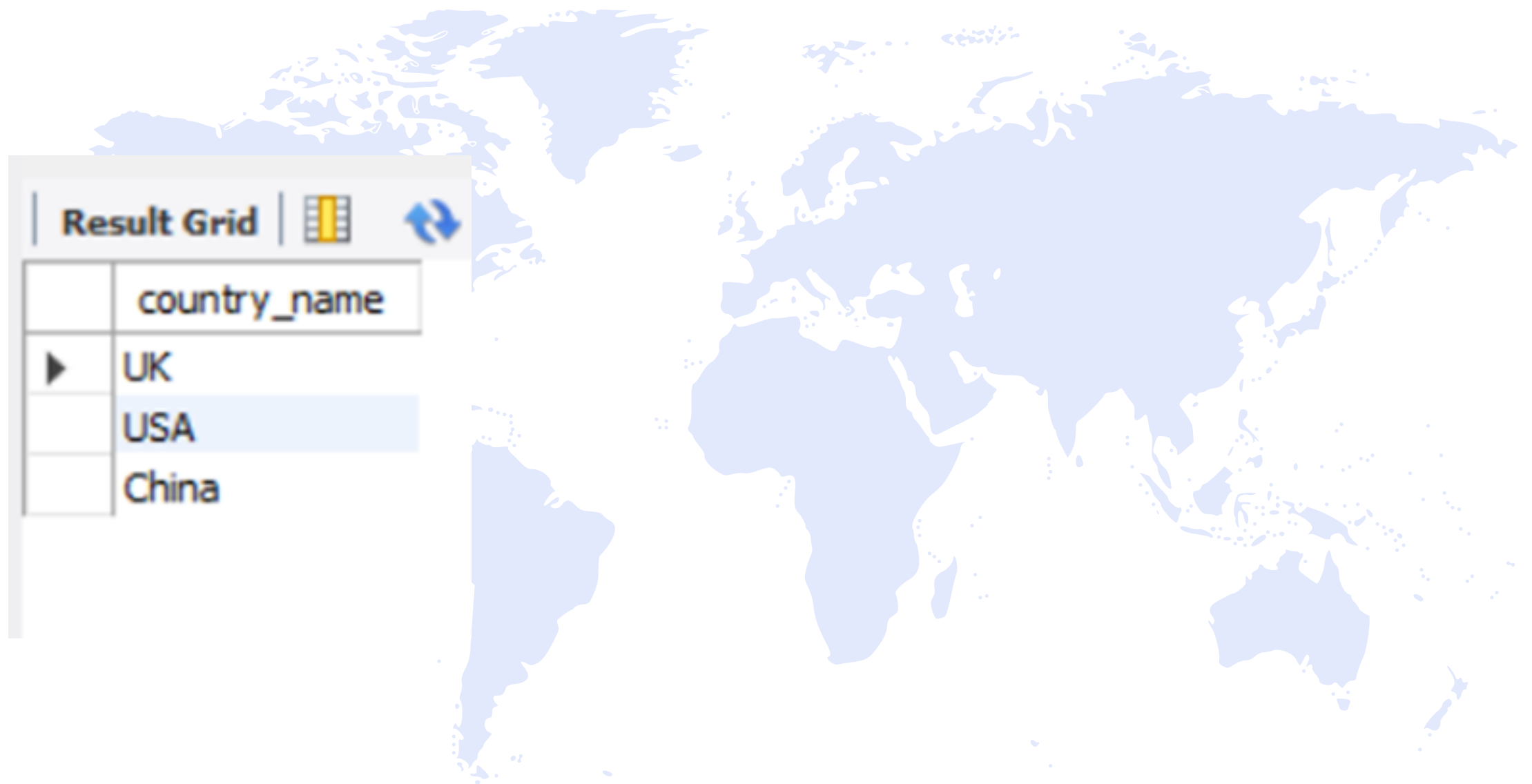
2. What is the total number of customers in the customers table?

Ans:

select count(customer_id) as no_of_customers from customers;

	no_of_customers
▶	8

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

Ans:

select avg(age) as avg_age from customers where can_email= 'yes';

	avg_age
▶	37.0000

Result Grid

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

Ans:

select count(o.order_id) as total_orders
from customers c join orders o on
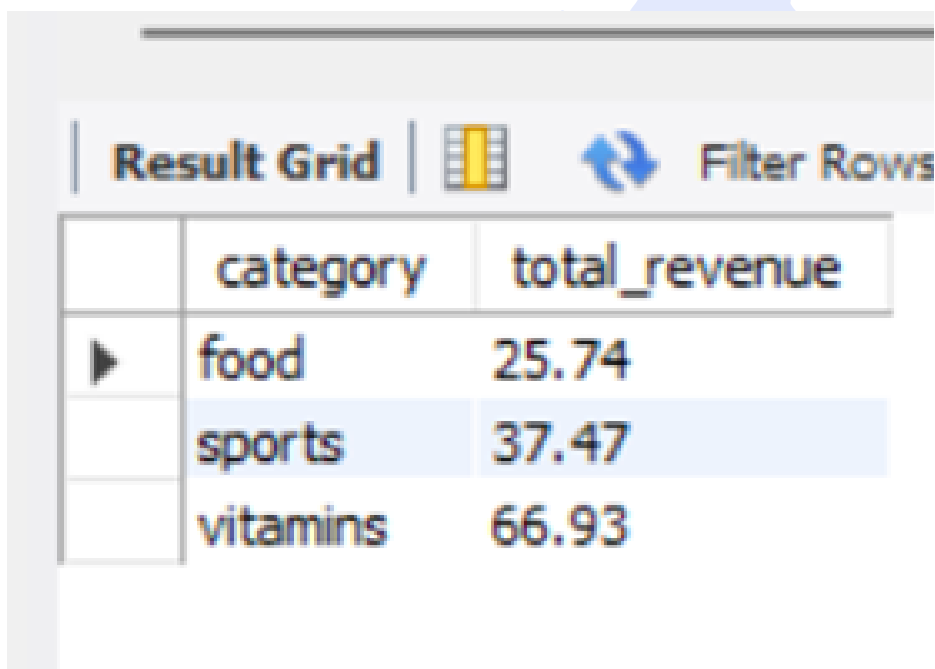**c.customer_id=o.customer_id**
where c.age>=30;

total_orders
3

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

Ans:

```sql
 select  p.category,sum(p.price) as total_revenue
from baskets b
join products p on b.product_id=p.product_id
group by 1
order by 1 asc;
```

	category	total_revenue
▶	food	25.74
	sports	37.47
	vitamins	66.93

Result Grid | Filter Rows

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

Ans:

select category, avg(price) as avg_price from products
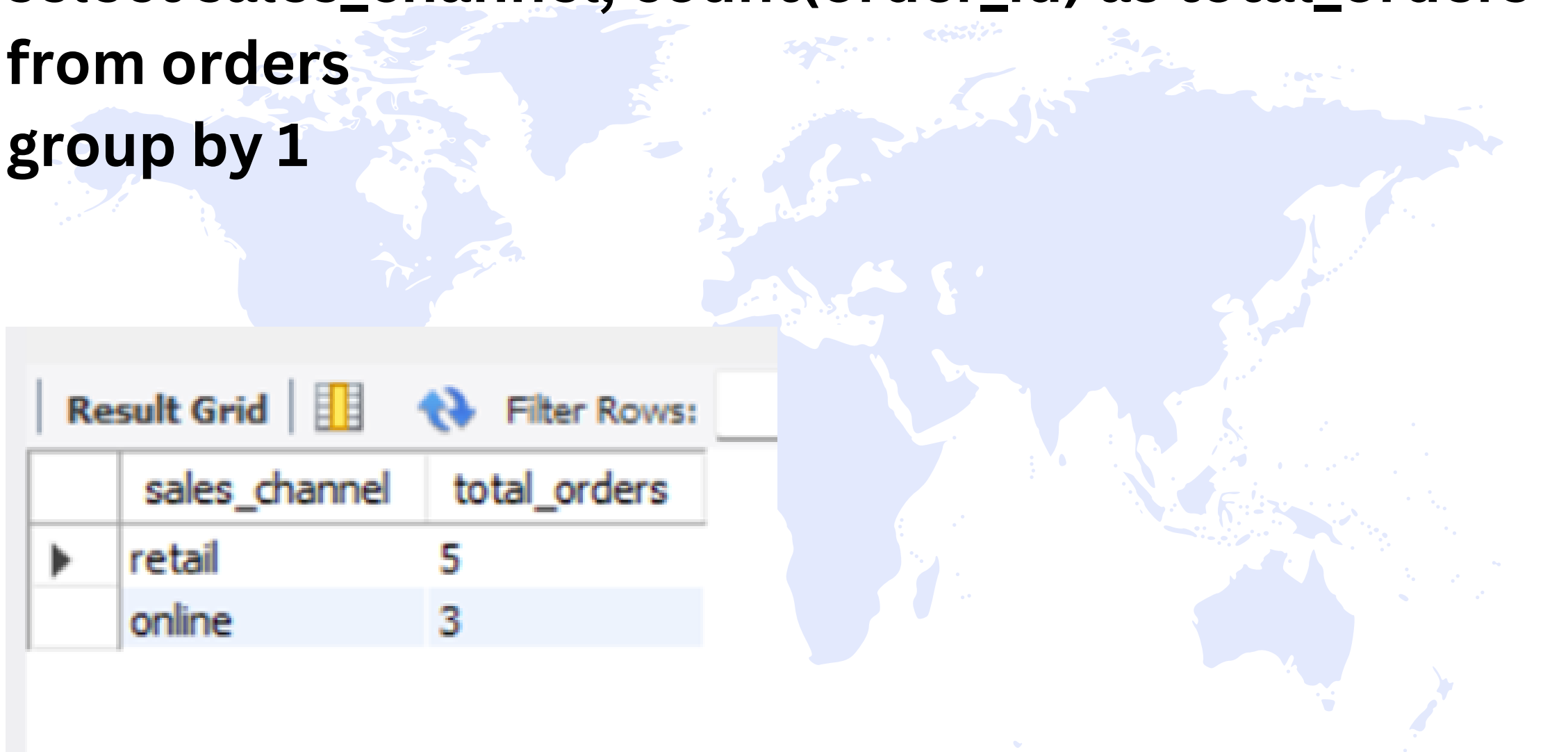where category='food'
group by 1

category	avg_price
food	3.440000

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

Ans :

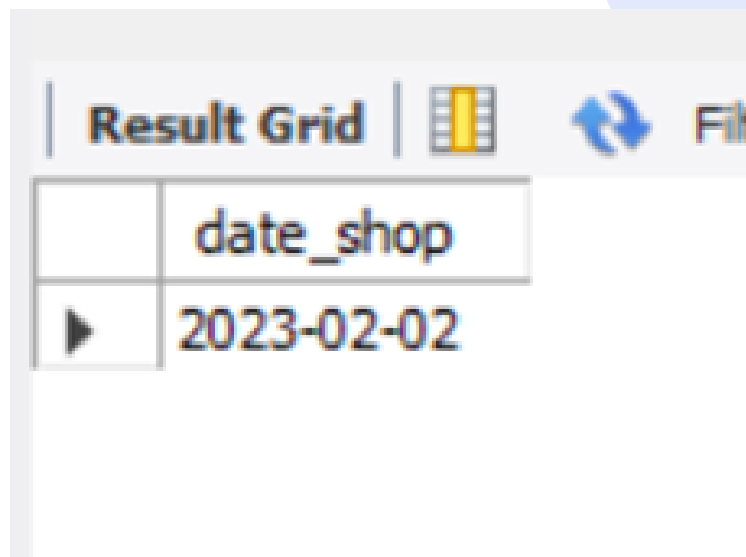**select sales_channel, count(order_id) as total_orders from orders group by 1**

	sales_channel	total_orders
▶	retail	5
	online	3

Result Grid | | | Filter Rows:

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

Ans:

select o.date_shop
from customers c
join orders o on c.customer_id=o.customer_id
where can_email='yes'
order by 1 desc
limit 1

Result Grid	
	date_shop
▶	2023-02-02

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

Ans:

select o.country_id,c.country_name, count(o.order_id)
as total_orders
from orders o
join country c on o.country_id=c.country_id
group by 1,2
order by 3 desc
limit 1

	country_id	country_name	total_orders
▶	1	UK	5

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

Ans:

```sql
with cte1 as
(select c.customer_id, c.age
from products p
join baskets b on p.product_id=b.product_id
join orders o on b.order_id=o.order_id
join customers c on o.customer_id=c.customer_id
where category='vitamins'
group by 1)
select avg(age) as avg_age_cus from cte1
```
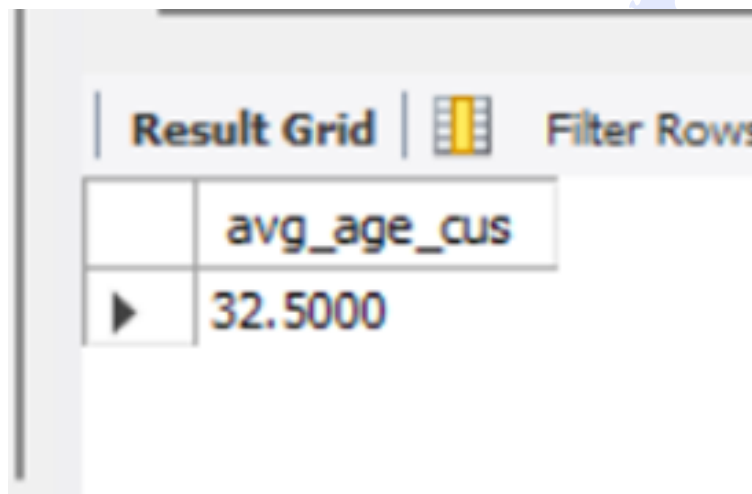
Result Grid	Filter Rows
	avg_age_cus
▶	32.5000