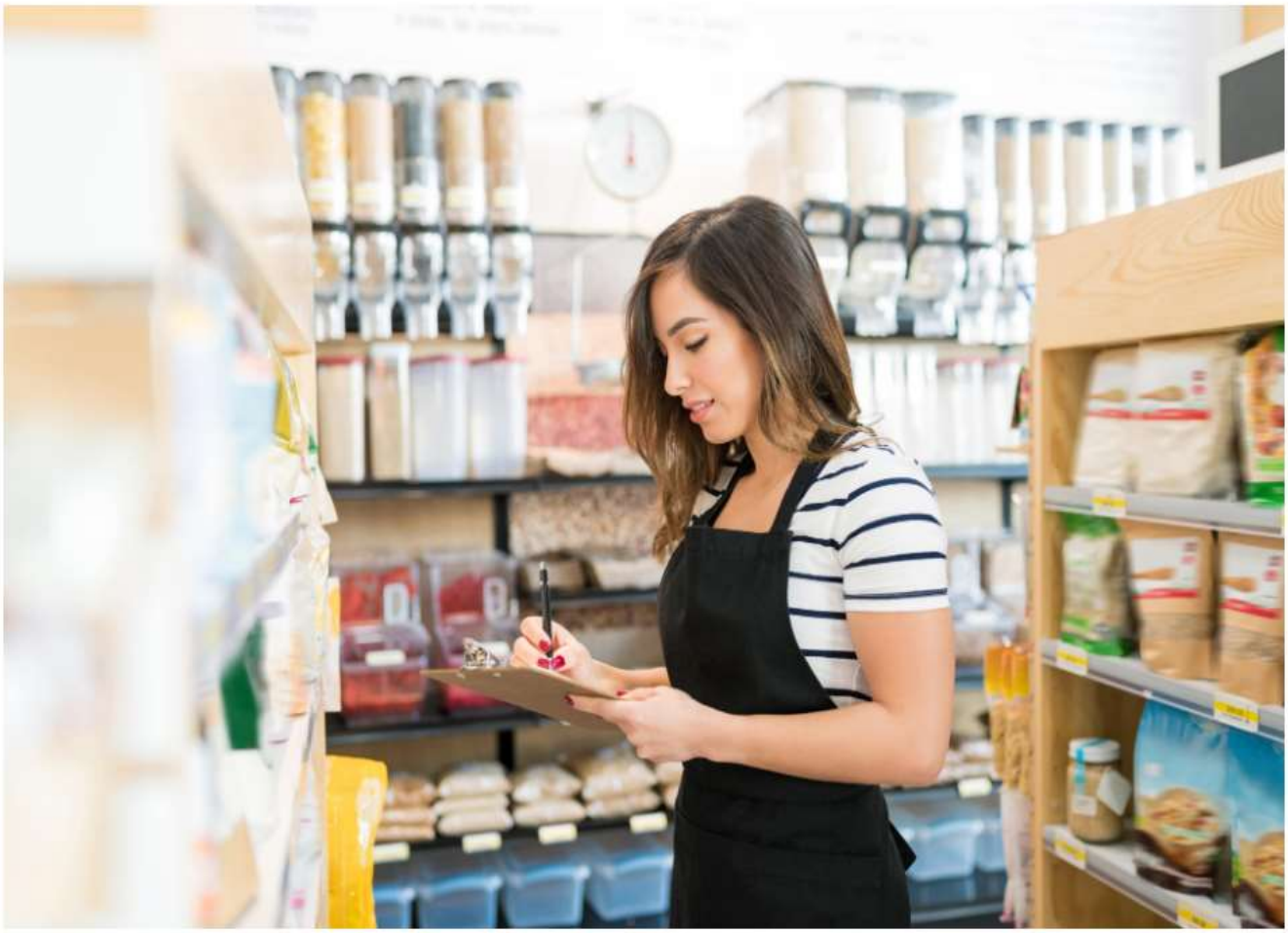
SQL Challenge 3

Challenge 3 - Customer Insights



DATASETS

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

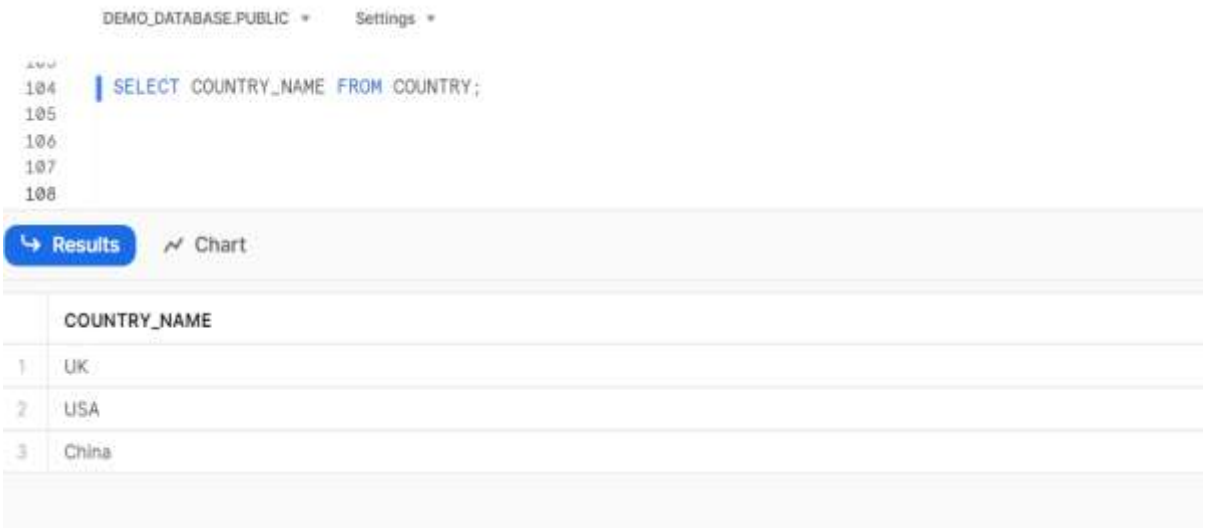
product_id	category	price
1	food	5.99
2	sports	12.49
3	vitamins	6.99
4	food	0.89
5	vitamins	15.99

country

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

CASE STUDY QUESTIONS

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?

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

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

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

```
DEMO_DATABASE.PUBLIC ▾   Settings ▾

SELECT SALES_CHANNEL, COUNT(ORDER_ID) AS NUMBER_OF_ORDERS
FROM ORDERS
GROUP BY 1;
```

Results | Chart

	SALES_CHANNEL	NUMBER_OF_ORDERS
1	retail	5
2	online	3

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

```
DEMO_DATABASE.PUBLIC ▾   Settings ▾

SELECT MAX(DATE_SHOP) as latest_date
FROM ORDERS o
JOIN CUSTOMERS c ON c.customer_id = o.customer_id
WHERE CAN_EMAIL = 'yes';
```

Results | Chart

	LATEST_DATE
1	2023-02-02

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

```
DEMO_DATABASE.PUBLIC ▾   Settings ▾

SELECT COUNTRY_NAME, COUNT(ORDER_ID) AS TOTAL_ORDERS
FROM ORDERS o
JOIN COUNTRY c ON o.country_id = c.country_id
GROUP BY 1
ORDER BY 2 DESC
LIMIT 1;
```

Results | Chart

	COUNTRY_NAME	TOTAL_ORDERS
1	UK	5

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

DEMO_DATABASE.PUBLIC ▾ Settings ▾

```
161
162  SELECT p.CATEGORY, ROUND(AVG(c.AGE),2) AS AVG_AGE
163  FROM CUSTOMERS c
164  JOIN ORDERS o ON c.customer_id = o.customer_id
165  JOIN BASKETS b ON b.order_id = o.order_id
166  JOIN PRODUCTS p ON b.product_id = p.product_id
167  WHERE p.CATEGORY = 'vitamins'
168  GROUP BY 1;
169
170
171
172
173
174
175
```

Results Chart

	CATEGORY	AVG_AGE
1	vitamins	29.71