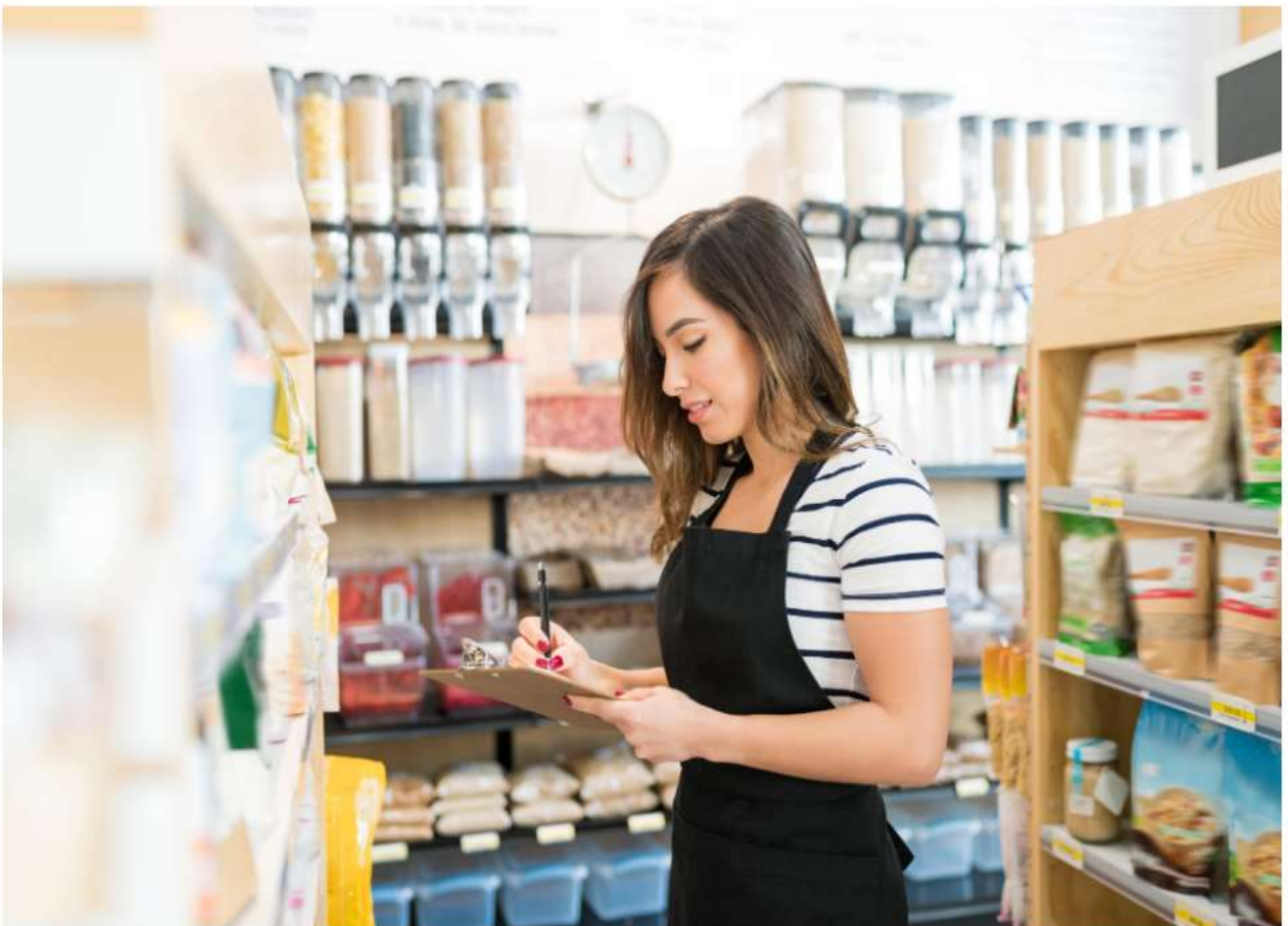


SQL Challenge 3

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?

DEMO_DATABASE.PUBLIC * Settings *

```
104 | SELECT COUNTRY_NAME FROM COUNTRY;  
105  
106  
107  
108
```

Results Chart

	COUNTRY_NAME
1	UK
2	USA
3	China

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

DEMO_DATABASE.PUBLIC * Settings *

```
107  
108 | SELECT COUNT(DISTINCT CUSTOMER_ID) AS TOTAL_CUSTOMER FROM CUSTOMERS;  
109  
110  
111  
112  
113
```

Results Chart

	TOTAL_CUSTOMER
1	8

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

DEMO_DATABASE.PUBLIC * Settings *

```
111  
112 | SELECT ROUND(AVG(AGE), 1) AS AVG_AGE  
113 | FROM CUSTOMERS  
114 | WHERE CAN_EMAIL = 'yes';  
115  
116
```

Results Chart

	AVG_AGE
1	37.0

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

DEMO_DATABASE.PUBLIC + Settings +

```
117
118 SELECT COUNT(ORDER_ID) AS TOTAL_ORDERS
119 FROM ORDERS o
120 JOIN CUSTOMERS c ON c.customer_id = o.customer_id
121 WHERE c.age >=30;
122
123
```

Results Chart

	TOTAL_ORDERS
1	3

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

DEMO_DATABASE.PUBLIC + Settings +

```
124
125 SELECT p.CATEGORY, SUM(p.PRICE) AS TOTAL_REVENUE
126 FROM PRODUCTS p
127 JOIN BASKETS b ON p.product_id = b.product_id
128 GROUP BY 1;
129
130
```

Results Chart

	CATEGORY	TOTAL_REVENUE
1	food	25.74
2	sports	37.47
3	vitamins	66.93

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

DEMO_DATABASE.PUBLIC + Settings +

```
131
132 SELECT CATEGORY, ROUND(AVG(PRICE),2) AS AVG_PRICE
133 FROM PRODUCTS
134 WHERE CATEGORY = "food"
135 GROUP BY 1;
136
137
```

Results Chart

	CATEGORY	AVG_PRICE
1	food	3.44

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

DEMO_DATABASE.PUBLIC * Settings *

```
138
139 SELECT SALES_CHANNEL, COUNT(ORDER_ID) AS NUMBER_OF_ORDERS
140 FROM ORDERS
141 GROUP BY 1;
142
143
144
```

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 *

```
144
145 SELECT MAX(DATE_SHOP) as latest_date
146 FROM ORDERS o
147 JOIN CUSTOMERS c ON c.customer_id = o.customer_id
148 WHERE CAN_EMAIL = 'yes';
149
150
```

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 *

```
151
152 SELECT COUNTRY_NAME, COUNT(ORDER_ID) AS TOTAL_ORDERS
153 FROM ORDERS o
154 JOIN COUNTRY c ON o.country_id = c.country_id
155 GROUP BY 1
156 ORDER BY 2 DESC
157 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