SQL Challenge-3

Customer Insights

Challenge hosted on Steeldata.org

Solutions by Thanaselvi C

on 25 Dec 2023

As an Insights Analyst, these ad-hoc requests are part of my daily routine. Recently, I took on the Customer Insights Challenge posed by Matthew Steel and Steel Data to further explore this dynamic landscape.

Customer Insights Analyst at 'The General Store', I used SQL to analyse 'customers' and 'orders' tables and find key customer information for the marketing team.

Here are the tables i have used

1. Customers
2. Orders
3. Baskets
4. Products
5. Country

@Thanaselvi

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

Syntax:

```
select country_name
from country;
```

Output:

```
country_name
UK
USA
China
```

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

Syntax: Output:

```
SELECT COUNT(CUSTOMER_ID)
AS TOTAL_CUSTOMERS
FROM CUSTOMERS;
```

TOTAL_CUSTOMERS
8

@Thanaselvi

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

Syntax: Output:

```
SELECT AVG(AGE) AS AVG_AGE              AVG_AGE
FROM CUSTOMERS                                37
WHERE can_email='YES';
```

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

Syntax:

Output:

SELECT COUNT(O.ORDER_ID) AS TOTAL_ORDER
FROM ORDERS O
INNER JOIN customers C
ON O.customer_id = C.customer_id
WHERE AGE>=30;

TOTAL_ORDER
3

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

Syntax: **Output:**

```
SELECT CATEGORY,
SUM(PRICE) AS TOTAL_REVENUE
FROM PRODUCTS P JOIN BASKETS B
ON P.product_id = B.product_id
GROUP BY category
ORDER BY TOTAL_REVENUE DESC;
```

CATEGORY	TOTAL_REVENUE
vitamins	66.93
sports	37.47
food	25.74

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

Syntax: Output:

```
SELECT AVG(PRICE) AS AVG_PRICE
FROM PRODUCTS
WHERE category = 'FOOD';
```

AVG_PRICE
3.440000

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

Output:

Syntax:

```
SELECT SALES_CHANNEL,COUNT(ORDER_ID)
AS TOT_ORDERS
FROM ORDERS
GROUP BY sales_channel
ORDER BY TOT_ORDERS;
```

SALES_CHANNEL	TOT_ORDERS
online	3
retail	5

@Thanaselvi

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

Syntax:

Output:

```
SELECT MAX(O.DATE_SHOP)
AS LATERST_ORDER_DATE
FROM ORDERS AS O JOIN CUSTOMERS AS C
ON O.customer_id = C.customer_id
WHERE can_email='YES';
```

LATERST_ORDER_DATE
2023-02-02

@Thanaselvi

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

Syntax: Output:

```
SELECT TOP 1 C.COUNTRY_NAME
FROM COUNTRY AS C JOIN ORDERS AS O
ON C.country_id = O.country_id
GROUP BY country_name
ORDER BY COUNT(ORDER_ID) DESC;
```

COUNTRY_NAME
UK

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

@Thanaselvi

Syntax:

Output:

```
select category,round(avg(age),3) as avg_age
from customers as c
join orders as o
on o.customer_id = c.customer_id
join baskets as b
on o.order_id = b.order_id
join products as p
on p.product_id= b.order_id
where category = 'vitamins'
group by category;
```

category
vitamins

@Thanaselvi

LIKE
&
FOLLOW
for more
@Thanaselvi C