

**DAY
26**

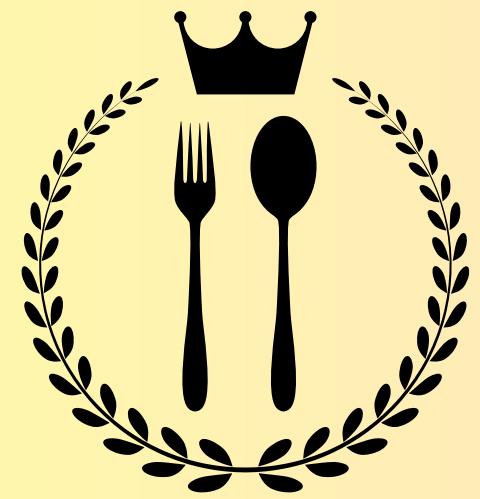


**SQ
CHALLENGE**



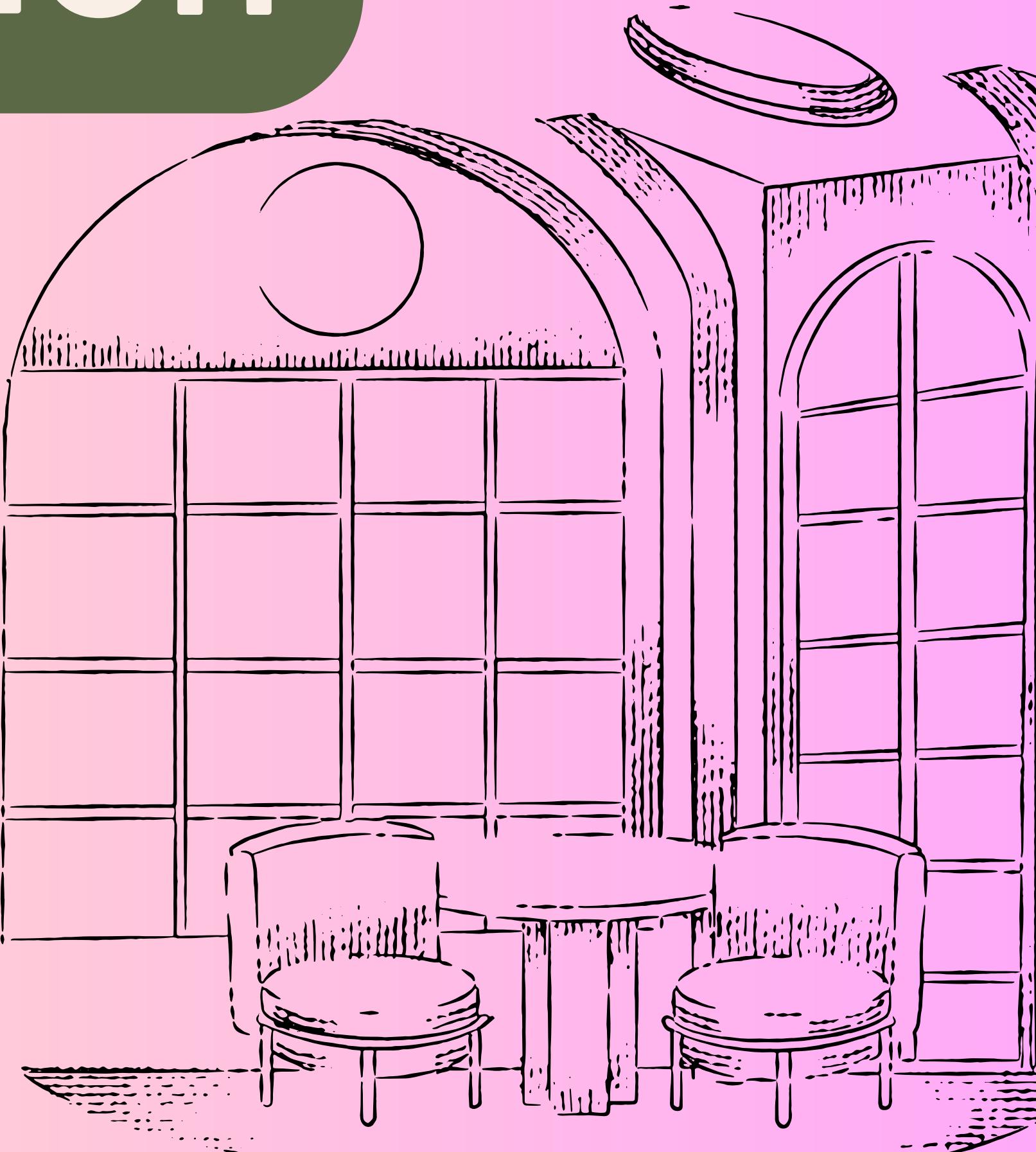
THE TASTE OF SUCCESS

DATAWITHDANNY.COM



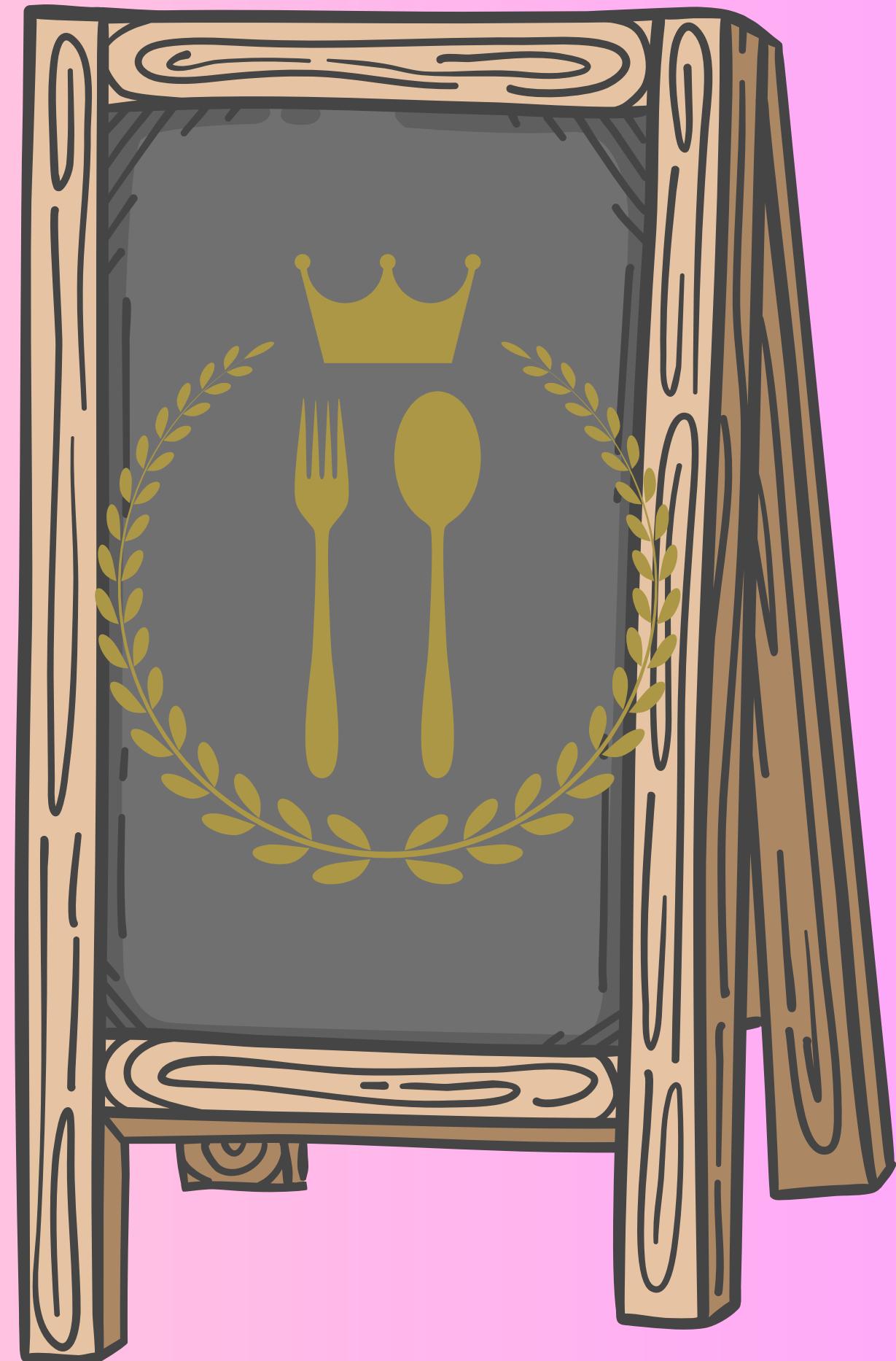
introduction

Danny seriously loves Japanese food so in the beginning of 2021, he decides to embark upon a risky venture and opens up a cute little restaurant that sells his 3 favourite foods: sushi, curry and ramen.



PROBLEM STATEMENT

Danny aims to leverage customer data for insights on visiting patterns, spending habits, and favorite menu items. He plans on using these insights to help him decide whether he should expand the existing customer loyalty program - additionally he needs help to generate some basic datasets so his team can easily inspect the data without needing to use SQL.



What is the total amount each customer spent at the restaurant?

```
SELECT  
customer_id,Sum(price) as Total_Price  
FROM dannys_diner.sales S Inner Join dannys_diner.menu M  
On S.product_id = M.product_id  
Group By customer_id  
Order by Total_Price desc ;
```

	customer_id	price
A		76
B		74
C		36



How many days has each customer visited the restaurant?

```
SELECT  
    S.customer_id,  
    count(Distinct Order_date) as Number_of_visit  
FROM dannys_diner.sales S  
Group By S.customer_id
```

	customer_id	Number_of_visit
▶	A	4
	B	6
	C	2



What was the first item from the menu purchased by each customer?

```
with cte as (
SELECT S.customer_id,S.order_date,M.product_name,
 Row_number() over(Partition by S.customer_id Order By
S.order_date)as Date
FROM dannys_diner.sales S Inner Join dannys_diner.menu M
On S.product_id = M.product_id)
Select customer_id,product_name From cte where Date = 1;
```



	customer_id	product_name
A		sushi
B		curry
C		ramen

What is the most purchased item on the menu and how many times was it purchased by all customers?

```
SELECT M.product_name, COUNT(*) AS total_purchases  
FROM dannys_diner.sales AS S  
INNER JOIN dannys_diner.menu AS M ON S.product_id =  
M.product_id  
GROUP BY M.product_name  
ORDER BY total_purchases DESC  
LIMIT 1;
```

product_name	total_purchases
ramen	8



Which item was the most popular for each customer?

```
WITH ItemCount AS ( SELECT S.customer_id, M.product_name,  
count(*) As total_purchased,  
RANK() OVER (PARTITION BY S.customer_id ORDER BY count(*)  
Desc) AS rnk FROM dannys_diner.sales S  
INNER JOIN dannys_diner.menu M  
ON S.product_id = M.product_id  
GROUP BY M.product_name, S.customer_id)  
SELECT customer_id, product_name FROM ItemCount  
where rnk = 1;
```

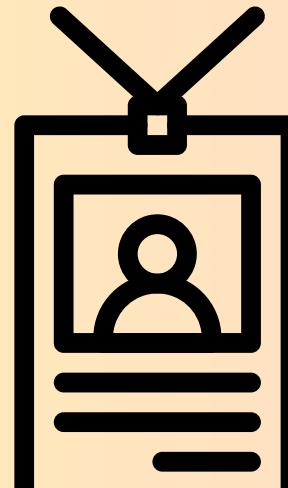


	customer_id	product_name
▶	A	ramen
▶	B	curry
▶	B	sushi
▶	B	ramen
▶	C	ramen

Which item was purchased first by the customer after they became a member?

```
with cte as (Select S.customer_id,Me.product_name,  
S.order_date, M.join_date ,  
Rank() Over(partition by s .customer_id order by S.order_date ) as  
rnk  
from dannys_diner.sales S Inner Join  
dannys_diner.members M ON S.customer_id = M.customer_id  
And S.order_date > M.join_date  
Join dannys_diner.menu Me ON S.product_id = Me.product_id)
```

```
Select customer_id,product_name,join_date ,order_date from cte  
where rnk=1;
```



	customer_id	product_name	join_date	order_date
▶	A	ramen	2021-01-07	2021-01-10
	B	sushi	2021-01-09	2021-01-11

Which item was purchased just before the customer became a member?

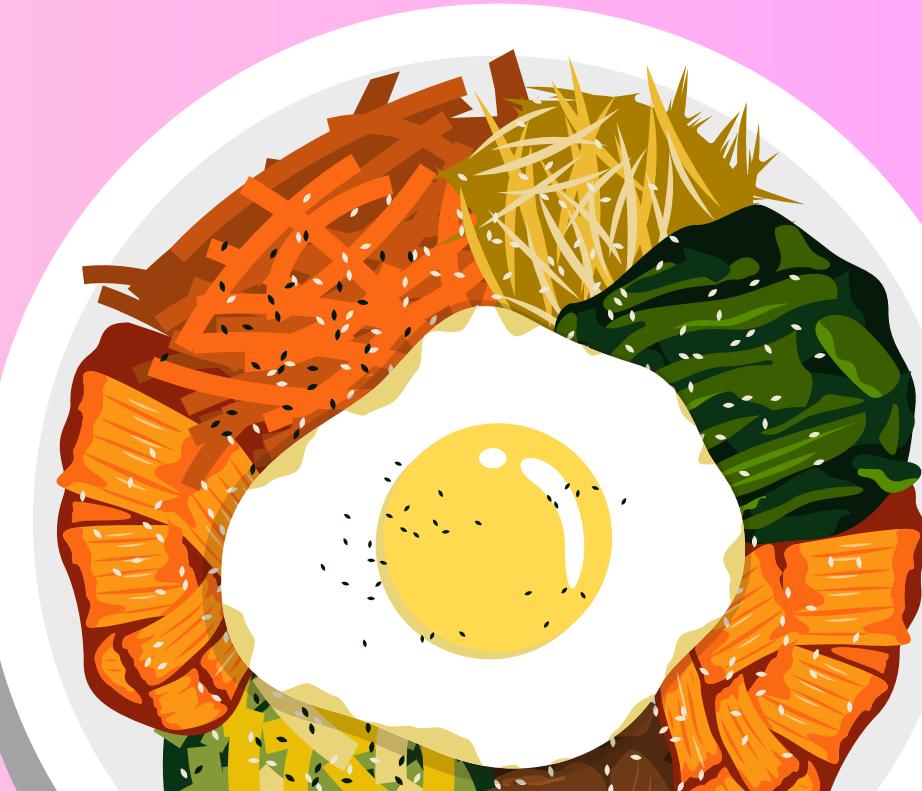
```
with cte as (Select S.customer_id,Me.product_name,  
S.order_date, M.join_date ,  
Rank() Over(partition by s .customer_id order by S.order_date ) as  
rnk  
from dannys_diner.sales S Inner Join  
dannys_diner.members M ON S.customer_id = M.customer_id  
And S.order_date < M.join_date  
Join dannys_diner.menu Me ON S.product_id = Me.product_id)  
  
Select customer_id,product_name,join_date ,order_date from cte  
where rnk=1;
```

	customer_id	product_name	join_date	order_date
▶	A	sushi	2021-01-07	2021-01-01
	A	curry	2021-01-07	2021-01-01
	B	curry	2021-01-09	2021-01-01

What is the total items and amount spent for each member before they became a member?

```
Select S.customer_id,Count(Me.product_name)as  
Total_item,sum(Me.price) as Total_Price from  
dannys_diner.sales S Inner Join  
dannys_diner.members M ON S.customer_id = M.customer_id  
And S.order_date < M.join_date  
Join dannys_diner.menu Me On S.product_id = Me.product_id  
group by S.customer_id  
Order by S.customer_id
```

	customer_id	Total_item	Total_Price
A	2	25	
B	3	40	



If each \$1 spent equates to 10 points and sushi has a 2x points multiplier - how many points would each customer have?

```
SELECT customer_id,  
  SUM(CASE WHEN menu.product_name = 'sushi'  
  THEN(price * 2) * 10  
  ELSE price * 10 END) AS total_points  
  FROM dannys_diner.sales s JOIN dannys_diner.menu  
  ON s.product_id = menu.product_id  
  GROUP BY customer_id;
```

	customer_id	total_points
▼	A	860
	B	940
C		360



THANK YOU

