**Case Study Questions**

1. What is the total amount each customer spent at the restaurant?
2. How many days has each customer visited the restaurant?
3. What was the first item from the menu purchased by each customer?
4. What is the most purchased item on the menu and how many times was it purchased by all customers?
5. Which item was the most popular for each customer?
6. Which item was purchased first by the customer after they became a member?
7. Which item was purchased just before the customer became a member?
8. What is the total items and amount spent for each member before they became a member?
9. If each $1 spent equates to 10 points and sushi has a 2x points multiplier - how many points would each customer have?
10. In the first week after a customer joins the program (including their join date) they earn 2x points on all items, not just sushi - how many points do customer A and B have at the end of January?

select s.customer\_id , sum(m.price) as total\_amount

from sales as s join menu as m on s.product\_id = m.product\_id

group by s.customer\_id

order by s.customer\_id ;

select customer\_id , count (distinct order\_date) as visit\_count

from sales

group by customer\_id

order by customer\_id ;

select customer\_id , product\_name from

(

select s.customer\_id , m.product\_name ,

row\_number() over(partition by customer\_id order by order\_date desc) as rnk

from sales as s join menu as m on s.product\_id = m.product\_id

)

where rnk =1;

select m.product\_name , count(order\_date) as total

from sales as s join menu as m on s.product\_id = m.product\_id

group by m.product\_name

order by total desc

select customer\_id , product\_name, no\_times from

(

select s.customer\_id , m.product\_name,count(order\_date) as no\_times ,

row\_number() over(partition by customer\_id order by count(order\_date)desc) as rnk

from sales as s join menu as m on s.product\_id = m.product\_id

group by s.customer\_id ,m.product\_name

)

where rnk =1;

with CTE as

(

select s.customer\_id,s.order\_date,m.product\_name,mb.join\_date,

rank() over(partition by s.customer\_id order by order\_date) as rnk

from sales as s join menu as m on s.product\_id =m.product\_id

join members as mb on s.customer\_id = mb.customer\_id

where order\_date>=join\_date

)

select customer\_id,product\_name

from cte

where rnk=1

with CTE as

(

select s.customer\_id,s.order\_date,m.product\_name,mb.join\_date,

rank() over(partition by s.customer\_id order by order\_date) as rnk

from sales as s join menu as m on s.product\_id =m.product\_id

join members as mb on s.customer\_id = mb.customer\_id

where order\_date < join\_date

)

select customer\_id,product\_name

from cte

where rnk=1;

select s.customer\_id,count(s.product\_id) as product,sum(m.price)

from sales as s join menu as m on s.product\_id =m.product\_id

join members as mb on s.customer\_id = mb.customer\_id

where order\_date < join\_date

group by s.customer\_id

order by s.customer\_id

select s.customer\_id,

sum(case

when m.product\_id='1' then m.price\*2\*10

else m.price\*10

end) as points

from sales as s join menu as m on s.product\_id =m.product\_id

group by s.customer\_id

Order by s.customer\_id ;

WITH CTE1 AS (

SELECT

S.customer\_id, S.order\_date, M.product\_name, M.price,

CASE

WHEN product\_name = 'sushi' THEN 2 \* M.price

WHEN order\_date BETWEEN P.join\_date AND DATE\_ADD(P.join\_date, INTERVAL 6 DAY) THEN 2 \* M.price

ELSE M.price

END AS points

FROM Sales S JOIN Menu M ON S.product\_id = M.product\_id

JOIN Members P ON S.customer\_id = P.customer\_id

WHERE DATE\_FORMAT (order\_date, '%Y-%m-01') = '2021-01-01'

)

SELECT

customer\_id, SUM(points) \* 10 AS total\_points

FROM CTE1

GROUP BY customer\_id

order by customer\_id;

where s.order\_date >= me.join\_date and s.order\_date <= CAST('2021-01-31' AS DATE)

Group by s.customer\_id

SELECT

S.customer\_id,

S.order\_date,

M.product\_name,

M.price,

CASE

WHEN order\_date>= join\_dateTHEN 'Y'

ELSE 'N'

END AS Member

FROM

Sales S

JOIN

Menu M ON S.product\_id= M.product\_id

LEFT JOIN

Members P ON S.customer\_id= P.customer\_id

ORDER BY S.customer\_id, S.order\_date, M.product\_name;

with rank1 as

(

select s.customer\_id, s.order\_date,m.product\_name,m.price,

case

when s.order\_date>=mb.join\_datethen 'Y'

else 'N'

end as members

from sales as s join menu as m on s.product\_id=m.product\_id

left join members as mb on s.customer\_id= mb.customer\_id

Order by s.customer\_id,s.order\_date

)

select \* ,

(

case

when members like'N' then Null

else

rank() over(partition by customer\_id,members order by order\_date)

end ) as ranking

from rank1;