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Case Study Questions

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-- 1. What is the total amount each customer spent at the restaurant?

```
select s.customer_id, sum(price) as "Total Amount" from dannys_diner.menu as m
inner join dannys_diner.sales as s
on m.product_id = s.product_id
group by s.customer_id
```

-- 2. How many days has each customer visited the restaurant?

```
select customer_id, count(Distinct order_date) as Days from dannys_diner.sales
group by customer_id
```

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

```
with cte as (select customer_id, order_date, product_name,
                rank() over(partition by customer_id order by order_date asc) as rnk,
                row_number() over(partition by customer_id order by order_date asc) as rn
            from dannys_diner.menu as m
            inner join dannys_diner.sales as s
            on m.product_id = s.product_id)

select customer_id, product_name from cte
where rn = 1
```

-- 4. What was the second item from the menu purchased by customer id B?

```
select product_name from (select customer_id, order_date, product_name,
```

```
rank() over(partition by customer_id order by order_date asc) as rnk,  
row_number() over(partition by customer_id order by order_date asc) as rn  
from dannys_diner.menu as m  
inner join dannys_diner.sales as s  
on m.product_id = s.product_id) as sa  
where rn = 2 and customer_id = 'B'
```

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

```
select product_name, count(order_date) as orders from dannys_diner.menu as m  
inner join dannys_diner.sales as s  
on m.product_id = s.product_id  
group by product_name  
order by orders desc  
limit 1
```

-- 6. Which item was the most popular for each customer?

```
with cte as (select product_name, customer_id, count(order_date) as orders,  
rank() over(partition by customer_id order by count(order_date) desc) as rnk,  
row_number() over(partition by customer_id order by count(order_date) desc) as rn  
from dannys_diner.menu as m  
inner join dannys_diner.sales as s  
on m.product_id = s.product_id  
group by product_name, customer_id)
```

```
select customer_id, product_name from cte
where rn = 1
```

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

```
select product_name from (
select s.customer_id, m.product_name, s.order_date, mem.join_date,
rank() over(partition by s.customer_id order by order_date) as rnk,
row_number() over(partition by s.customer_id order by order_date) as rn
from dannys_diner.sales s
inner join dannys_diner.members as mem
on s.customer_id = mem.customer_id
inner join dannys_diner.menu as m
on s.product_id = m.product_id
where order_date >= join_date) as sa
where rn = 1
```

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

```
select product_name from (
select s.customer_id, m.product_name, s.order_date, mem.join_date,
rank() over(partition by s.customer_id order by order_date desc) as rnk,
row_number() over(partition by s.customer_id order by order_date desc) as rn
```

```
from dannys_diner.sales s
inner join dannys_diner.members as mem
on s.customer_id = mem.customer_id
inner join dannys_diner.menu as m
on s.product_id = m.product_id
where order_date < join_date) as sa
```

```
where rnk = 1
```

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

```
select s.customer_id, count(m.product_name) as total_items, sum(m.price) as amount_spent
from dannys_diner.sales s
inner join dannys_diner.members as mem
on s.customer_id = mem.customer_id
inner join dannys_diner.menu as m
on s.product_id = m.product_id
where order_date < join_date
group by s.customer_id
```

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

```
select s.customer_id, sum(case
    when product_name = 'sushi' then price * 10 * 2
    else price * 10
end) as points
from dannys_diner.menu m
```

```
inner join dannys_diner.sales s  
on m.product_id = s.product_id  
group by s.customer_id
```