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

```
SELECT
sales.customer_id, sum(menu.price) as total_spent
from dannys_diner.sales as sales
inner join dannys_diner.menu  as menu
on sales.product_id=menu.product_id
group by sales.customer_id
order by sales.customer_id
```

customer_id	total_spent
A	76
B	74
C	36

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

```
select
sales.customer_id, count(distinct(order_date)) as Number_of_datys_visited
from dannys_diner.sales as sales
group by sales.customer_id
```

customer_id	number_of_datys_visited
A	4
B	6
C	2

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

```
 select
 temp.customer_id, temp.product_name  as first_product_buy
 from (
 select
sales.customer_id , menu.product_name,
dense_rank() over(partition by sales.customer_id order by sales.order_date)  as
first_produkt_ordered
from dannys_diner.sales as sales
inner join dannys_diner.menu as menu
on sales.product_id= menu.product_id ) as temp
where temp.first_produkt_ordered =1
```

customer_id	first_product_buy
A	curry
A	sushi
B	curry
C	ramen

--4. Which item was the most popular for each customer?

```
select
temp.customer_id,temp.product_name as most_faviourite
from (
select
sales.customer_id, menu.product_name,
rank()over(partition by sales.customer_id
        order by count(menu.product_id) desc) as times_ordered
from dannys_diner.sales as sales
inner join dannys_diner.menu as menu
on  sales.product_id= menu.product_id
group by sales.customer_id ,menu.product_name ) as temp
where times_ordered =1
```

Query #1 Execution time: 2ms

customer_id	most_faviourite
A	ramen
B	ramen
B	curry
B	sushi
C	ramen

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

```
select
menu.product_name ,temp.most_purchased_item
from (
select
menu.product_id , count(*)  as  most_purchased
from dannys_diner.sales as sales
inner join dannys_diner.menu as menu
on sales.product_id= menu.product_id
group by menu.product_id
order by most_purchased desc
fetch first 1 row  only
) as temp
inner join dannys_diner.menu as menu
on menu.product_id =temp.product_id
```

product_name	most_purchased
ramen	8

--6 Which item was purchased first by the customer after they became a member?

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

customer_id	product_name
A	curry
B	sushi

--7 Which item was purchased just before the customer became a member?

```
select
temp.customer_id,temp.product_name
from (
select sales.customer_id,sales.order_date,menu.product_name,
rank()over(partition by sales.customer_id order by sales.order_date ) as rn
from  dannys_diner.sales as sales
inner join dannys_diner.menu as menu
on sales.product_id = menu.product_id
inner join dannys_diner.members as members
on sales.customer_id = members.customer_id
where sales.order_date < members.join_date
 ) as temp
 where temp.rn =1
```

customer_id	product_name
A	sushi
A	curry
B	curry

--8 What is the total items and amount spent for each member before they became a member?

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

customer_id	total_items	total_amount_spend
B	3	40
A	2	25