Danny's Diner

30 November 2022 12:02

```
--1. What is the total amount each customer spent at the restaurant?
SELECT s.customer_id,
       SUM(m.price) total_amount
FROM sales s
LEFT JOIN menu m
ON s.product_id=m.product_idsq
GROUP BY s.customer_id
ORDER BY s.customer_id;
```

customer_id	total_amount
A	76
B	74
C	36

```
--2.How many days has each customer visited the restaurant?
SELECT customer_id,
       COUNT(DISTINCT order_date) no_of_days_visited
FROM sales
GROUP BY customer_id;
```

customer_id	no_of_days_visited
A	4
B	6
C	2

```
--3.What was the first item from the menu purchased by each customer?
SELECT DISTINCT customer_id,
       product_name
FROM (SELECT s.customer_id,
             m.product_name,
             RANK() OVER (PARTITION BY s.customer_id ORDER BY order_date)
rank
      FROM sales s
      LEFT JOIN menu m
      ON s.product_id=m.product_id
      ) subquery
WHERE rank=1;
```

customer_id	product_name
A	curry
A	sushi
B	curry
C	ramen

```
--4. What is the most purchased item on the menu and how many times was it
purchased by all customers?
SELECT TOP 1 m.product_name,
       COUNT(1) number_of_times_purchased
FROM sales s
```

```
LEFT JOIN menu m
ON s.product_id=m.product_id
GROUP BY m.product_name
ORDER BY number_of_times_purchased DESC;
```

product_name	number_of_times_purchased
ramen	8

```
--5. Which item was the most popular for each customer?
SELECT TOP 1 m.product_name
FROM sales s
LEFT JOIN menu m
ON s.product_id=m.product_id
GROUP BY m.product_name
ORDER BY COUNT(1) DESC;
```

product_name
ramen

```
--6. Which item was purchased first by the customer after they became a
member?
WITH rank_cte AS (
SELECT  s.customer_id,
        m.product_name,
        s.order_date,
        DENSE_RANK() OVER (PARTITION BY s.customer_id ORDER BY order_date
ASC) rnk
FROM sales s
INNER JOIN menu m
ON s.product_id=m.product_id
INNER JOIN members mb
ON s.customer_id=mb.customer_id
WHERE s.order_date>=join_date
)
SELECT customer_id,
       product_name
FROM rank_cte
WHERE rnk =1
```

customer_id	product_name
A	curry
B	sushi

```
--7.Which item was purchased just before the customer became a member?
WITH rank_cte AS (
SELECT  s.customer_id,
        m.product_name,
        s.order_date,
        DENSE_RANK() OVER (PARTITION BY s.customer_id ORDER BY order_date
ASC) rnk
FROM sales s
INNER JOIN menu m
ON s.product_id=m.product_id
INNER JOIN members mb
ON s.customer_id=mb.customer_id
WHERE s.order_date<join_date
)
SELECT customer_id,
```

```
       product_name
FROM rank_cte
WHERE rnk =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  s.customer_id,
        COUNT(1) total_items,
        SUM(m.price) amount_spent

FROM sales s
INNER JOIN menu m
ON s.product_id=m.product_id
INNER JOIN members mb
ON s.customer_id=mb.customer_id
WHERE s.order_date<join_date
GROUP BY s.customer_id;
```

customer_id	total_items	amount_spent
A	2	25
B	3	40

```
--9.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 m.product_name ='sushi' THEN m.price*20
        ELSE m.price*10
        END ) points
FROM sales s
LEFT JOIN menu m
ON s.product_id=m.product_id
GROUP BY s.customer_id;
```

customer_id	points
A	860
B	940
C	360

```
--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(CASE WHEN s.order_date BETWEEN mb.join_date AND
DATEADD(DAY,DATEDIFF(DAY,0,mb.join_date),6) THEN m.price*20
           ELSE m.price*10
           END) points
FROM sales s
INNER JOIN members mb
ON s.customer_id=mb.customer_id
```

```
INNER JOIN menu m
ON s.product_id=m.product_id
GROUP BY s.customer_id;
```

customer_id	points
A	1270
B	840