

```
# 1) What is the total amount each customer spent at the restaurant?
SELECT s.customer_id, SUM(m.price) AS Amount_Spent
FROM `metal-complex-394210.Dannys_Diner.sales` AS s JOIN `metal-complex-394210.Dannys_Diner.menu` AS m ON s.product_id = m.product_id
GROUP BY s.customer_id
```

```
# 2) How many days has each customer visited the restaurant?
SELECT s.customer_id, COUNT(s.order_date) AS Number_of_days_visited
FROM `metal-complex-394210.Dannys_Diner.sales` AS s
GROUP BY s.customer_id
```

```
# 3) What was the first item purchased by each customer?
SELECT s.customer_id, s.order_date, m.product_name
FROM `metal-complex-394210.Dannys_Diner.sales` AS s JOIN `metal-complex-394210.Dannys_Diner.menu` AS m ON s.product_id = m.product_id
GROUP BY s.customer_id, s.order_date, m.product_name
ORDER BY s.order_date ASC
LIMIT 4
```

```
# 4) What is the most purchased item on the menu and how many times was it purchased by all customers?
WITH cte AS (
    SELECT m.product_id, m.product_name, COUNT(s.order_date) AS number_of_times_ordered
    FROM `metal-complex-394210.Dannys_Diner.sales` AS s JOIN `metal-complex-394210.Dannys_Diner.menu` AS m ON s.product_id = m.product_id
    GROUP BY m.product_id, m.product_name
    ORDER BY COUNT(s.order_date) DESC
    LIMIT 1
)
```

```
SELECT s.customer_id, cte.product_name, COUNT(s.order_date) AS number_of_times_ordered
FROM `metal-complex-394210.Dannys_Diner.sales` AS s JOIN cte ON s.product_id = cte.product_id
GROUP BY s.customer_id, cte.product_name
```

5) Which item was the most popular for each customer?

```
WITH customer_order_counts AS (  
    SELECT  
        s.customer_id,  
        menu.product_name,  
        COUNT(*) AS order_count,  
        ROW_NUMBER() OVER (PARTITION BY s.customer_id ORDER BY COUNT(*) DESC) AS rn  
    FROM  
        `metal-complex-394210.Dannys_Diner.sales` AS s  
    JOIN  
        `metal-complex-394210.Dannys_Diner.menu` AS menu  
    ON s.product_id = menu.product_id  
    GROUP BY  
        s.customer_id,  
        menu.product_name  
)  
  
SELECT  
    customer_id,  
    product_name AS most_popular_item  
FROM  
    customer_order_counts  
WHERE  
    rn = 1;
```

6) Which item was purchased first by the customer after they became a member.

```
WITH cte AS(  
    SELECT s.customer_id, mem.join_date  
    FROM `metal-complex-394210.Dannys_Diner.sales` AS s JOIN `metal-complex-  
394210.Dannys_Diner.members` AS mem ON s.customer_id = mem.customer_id  
    GROUP BY s.customer_id, mem.join_date  
)  
  
SELECT ss.customer_id, m.product_name, ss.order_date  
FROM `metal-complex-394210.Dannys_Diner.sales` AS ss JOIN `metal-complex-  
394210.Dannys_Diner.menu` AS m ON ss.product_id = m.product_id  
WHERE ss.order_date >= (SELECT mem.join_date  
    FROM `metal-complex-394210.Dannys_Diner.sales` AS s JOIN `metal-complex-  
394210.Dannys_Diner.members` AS mem ON s.customer_id = mem.customer_id  
    GROUP BY s.customer_id, mem.join_date)
```

```

HAVING ss.customer_id = s.customer_id)
GROUP BY ss.customer_id, m.product_name, ss.order_date
ORDER BY ss.customer_id, ss.order_date

```

7) Which item was purchased just before the customer became a member.

```

WITH orderBeforeMember AS (
    SELECT
        s.customer_id,
        mn.product_name,
        s.order_date,
        m.join_date,
        DENSE_RANK() OVER(PARTITION BY s.customer_id ORDER BY s.order_date DESC) AS rnk
    FROM `metal-complex-394210.Dannys_Diner.sales` AS s
    JOIN `metal-complex-394210.Dannys_Diner.members` AS m
        ON s.customer_id = m.customer_id
    JOIN `metal-complex-394210.Dannys_Diner.menu` AS mn
        ON s.product_id = mn.product_id
    WHERE s.order_date < m.join_date
)

SELECT
    customer_id,
    product_name,
    order_date,
    join_date
FROM orderBeforeMember
WHERE rnk = 1;

```

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

```

SELECT
    s.customer_id,
    COUNT(s.order_date) AS number_of_orders,
    SUM(mn.price) AS total_amount
FROM `metal-complex-394210.Dannys_Diner.sales` AS s
JOIN `metal-complex-394210.Dannys_Diner.members` AS m
    ON s.customer_id = m.customer_id

```

```

JOIN `metal-complex-394210.Dannys_Diner.menu` AS mn
  ON s.product_id = mn.product_id
WHERE s.order_date < m.join_date
GROUP BY s.customer_id

```

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

```

WITH cte as(
  SELECT
    s.customer_id,
    CASE
      WHEN s.customer_id in (SELECT customer_id FROM `metal-complex-
394210.Dannys_Diner.members`) AND mn.product_name = 'sushi' THEN mn.price*20
      WHEN s.customer_id in (SELECT customer_id FROM `metal-complex-
394210.Dannys_Diner.members`) AND mn.product_name != 'sushi' THEN mn.price*10
      ELSE 0 END AS number_of_points
    FROM `metal-complex-394210.Dannys_Diner.sales` AS s
    JOIN `metal-complex-394210.Dannys_Diner.members` AS m
      ON s.customer_id = m.customer_id
    JOIN `metal-complex-394210.Dannys_Diner.menu` AS mn
      ON s.product_id = mn.product_id
  )

```

```

SELECT cte.customer_id, SUM(cte.number_of_points) As total_points
FROM cte
GROUP BY cte.customer_id

```

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?

```

WITH cte as(
  SELECT
    s.customer_id,
    CASE
      WHEN s.customer_id in (SELECT customer_id FROM `metal-complex-
394210.Dannys_Diner.members`) AND (s.order_date BETWEEN m.join_date AND m.join_date+6)
      THEN mn.price*20
      WHEN mn.product_name = 'sushi' THEN mn.price*20
    
```

```

        WHEN s.customer_id in (SELECT customer_id FROM `metal-complex-
394210.Dannys_Diner.members`) AND (s.order_date <= '2021-01-31') THEN mn.price*10
        ELSE 0 END AS number_of_points
FROM `metal-complex-394210.Dannys_Diner.sales` AS s
JOIN `metal-complex-394210.Dannys_Diner.members` AS m
    ON s.customer_id = m.customer_id
JOIN `metal-complex-394210.Dannys_Diner.menu` AS mn
    ON s.product_id = mn.product_id
)

SELECT cte.customer_id, SUM(cte.number_of_points) AS total_points
FROM cte
GROUP BY cte.customer_id

```