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

SELECT

COUNT(sales.product\_id) AS prod\_count,

SUM(sales.product\_id \* menu.price) AS Total\_Spent

FROM sales

INNER JOIN menu

ON sales.product\_id = menu.product\_id

GROUP BY customer\_id

ORDER BY prod\_count DESC

1. How many days has each customer visited the restaurant?

SELECT

customer\_id,

COUNT(order\_date) AS count\_days

FROM sales

GROUP BY customer\_id

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

WITH first\_date AS(

SELECT customer\_id,

min(order\_date) as first\_purchase

FROM

sales

GROUP BY

customer\_id

)

SELECT

t1.order\_date,

t1.customer\_id,

t1.product\_id,

menu.product\_name

FROM

sales t1

INNER JOIN first\_date

ON

order\_date = first\_purchase

and t1.customer\_id = first\_date.customer\_id

INNER JOIN menu

ON

t1.product\_id = menu.product\_id

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

SELECT

COUNT(s.product\_id) AS prod\_count,

menu.product\_name

FROM sales s

INNER JOIN menu ON

s.product\_id = menu.product\_id

GROUP BY s.product\_id, menu.product\_name

ORDER BY prod\_count DESC

1. Which item was the most popular for each customer?

SELECT

s.customer\_id,

COUNT(s.product\_id) AS prod\_count,

menu.product\_name

FROM sales s

INNER JOIN menu ON

s.product\_id = menu.product\_id

GROUP BY s.customer\_id, s.product\_id, menu.product\_name

ORDER BY s.customer\_id, prod\_count DESC

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

SELECT

customer\_id,

SUM(CASE

WHEN customer\_id = 'A' AND order\_date > '2021-01-07' THEN 1

WHEN customer\_id = 'B' AND order\_date > '2021-01-09' THEN 1

ELSE 0

END) AS mem\_purch\_after,

menu.product\_name

FROM sales s

INNER JOIN menu ON

s.product\_id = menu.product\_id

WHERE customer\_id != 'C'

GROUP BY s.customer\_id, s.product\_id, menu.product\_name

ORDER BY mem\_purch\_after DESC

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

WITH rank AS (

SELECT

S.customer\_id,

M.product\_name,

Dense\_rank () OVER ( PARTITION BY S.customer\_id ORDER BY S.order\_date) AS rank

FROM dannys\_diner.sales S

JOIN dannys\_diner.menu M

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

JOIN dannys\_diner.members mem

ON mem.customer\_id = S.customer\_id

WHERE S.order\_date < mem.join\_date

)

SELECT \*

FROM rank

WHERE rank = 1

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

SELECT

S.customer\_id,

COUNT(s.product\_id) AS qty,

SUM(M.price) AS total\_spent

FROM dannys\_diner.sales S

JOIN dannys\_diner.menu M

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

JOIN dannys\_diner.members mem

ON mem.customer\_id = S.customer\_id

WHERE S.order\_date < mem.join\_date

GROUP BY S.customer\_id

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

WITH points as (

SELECT \*,

(CASE WHEN product\_id = 1 THEN price\*20

ELSE price\*10

END ) AS points

FROM dannys\_diner.menu

)

SELECT

S.customer\_id,

SUM(P.points) AS Total\_points

FROM dannys\_diner.sales S

JOIN points P

ON P.product\_id = S.product\_id

GROUP BY S.customer\_id

ORDER BY Total\_points DESC

1. 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 dates AS

(

SELECT \*,

DATEADD(DAY, 6, join\_date) AS valid\_date,

EOMONTH('2021-01-31') AS last\_date

FROM dannys\_diner.members AS mem

)

SELECT

S.Customer\_id,

SUM( CASE WHEN S.order\_date BETWEEN D.join\_date AND D.valid\_date THEN m.price\*20

Else m.price\*10

END

)

FROM dates D

JOIN sales S

ON D.customer\_id = S.customer\_id

JOIN members mem

ON mem.customer\_id = S.customer\_id

WHERE S.order\_date < D.last\_date

GROUP BY S.customer\_id