CREATE TABLE sales (

"customer\_id" VARCHAR(1),

"order\_date" DATE,

"product\_id" INTEGER

);

INSERT INTO sales

("customer\_id", "order\_date", "product\_id")

VALUES

('A', '2021-01-01', '1'),

('A', '2021-01-01', '2'),

('A', '2021-01-07', '2'),

('A', '2021-01-10', '3'),

('A', '2021-01-11', '3'),

('A', '2021-01-11', '3'),

('B', '2021-01-01', '2'),

('B', '2021-01-02', '2'),

('B', '2021-01-04', '1'),

('B', '2021-01-11', '1'),

('B', '2021-01-16', '3'),

('B', '2021-02-01', '3'),

('C', '2021-01-01', '3'),

('C', '2021-01-01', '3'),

('C', '2021-01-07', '3');

CREATE TABLE menu (

"product\_id" INTEGER,

"product\_name" VARCHAR(5),

"price" INTEGER

);

INSERT INTO menu

("product\_id", "product\_name", "price")

VALUES

('1', 'sushi', '10'),

('2', 'curry', '15'),

('3', 'ramen', '12');

CREATE TABLE members (

"customer\_id" VARCHAR(1),

"join\_date" DATE

);

INSERT INTO members

("customer\_id", "join\_date")

VALUES

('A', '2021-01-07'),

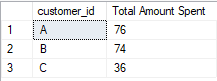
('B', '2021-01-09');

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

SELECT customer\_id, COUNT(order\_date) as 'Total Days Visited'

FROM sales

GROUP BY customer\_id

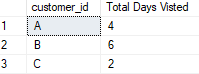


1. How many days has each customer visited the restaurant?

SELECT customer\_id, COUNT (DISTINCT order\_date)as "Total Days Visted"

FROM sales

GROUP BY customer\_id;



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

SELECT DISTINCT (s.customer\_id),s.product\_id, s.order\_date, m.product\_name

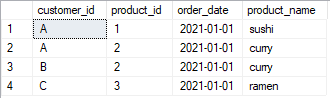
FROM sales as s

INNER JOIN menu as m on m.product\_id = s.product\_id

ORDER BY s.order\_date

offset 0 rows

fetch next 4 rows only



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

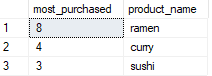
SELECT (count(s.product\_id)) as total\_purchased,product\_name

FROM sales as s

INNER JOIN menu as m on s.product\_id = m.product\_id

GROUP BY s.product\_id, product\_name

ORDER BY total\_purchased DESC



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

SELECT DISTINCT(s.customer\_ID),(COUNT(s.product\_id)) AS total\_purchased, product\_name

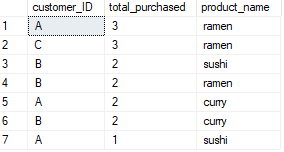
FROM sales AS s

JOIN menu AS m

ON s.product\_id = m.product\_id

GROUP BY s.customer\_id, product\_name

ORDER BY total\_purchased DESC



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

SELECT s.customer\_id,s.order\_date, b.join\_date, s.product\_id

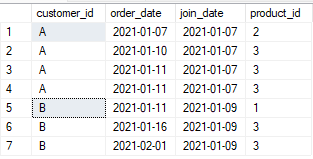
FROM sales AS s

JOIN members AS b

ON s.customer\_id = b.customer\_id

WHERE s.order\_date >=b.join\_date

ORDER BY s.order\_date



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

SELECT s.customer\_id,s.order\_date, b.join\_date, s.product\_id

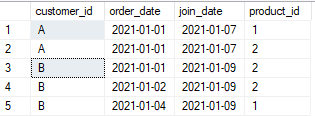
FROM sales AS s

JOIN members AS b

ON s.customer\_id = b.customer\_id

WHERE s.order\_date < b.join\_date

ORDER BY s.order\_date



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

SELECT s.customer\_id,count(distinct s.product\_id) as menu\_item, sum(m.price) as total\_cost

FROM sales AS s

JOIN members AS b

ON s.customer\_id = b.customer\_id

JOIN menu AS m

ON s.product\_id = m.product\_id

WHERE s.order\_date < b.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?

SELECT \*,

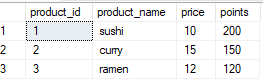
CASE

WHEN product\_id = 1 THEN price \* 20

ELSE price \* 10

END AS points

FROM menu as price\_points



SELECT s.customer\_id,

SUM(

CASE

WHEN m.product\_name = 'sushi' THEN 20 \* price

ELSE 10 \* PRICE

END

) AS Points

FROM sales as s

JOIN menu as m

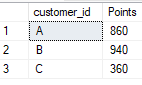
ON s.product\_id = m.product\_id

GROUP BY

s.customer\_id

ORDER BY

s.customer\_id;



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

Same code as above but limiting the date

SELECT

s.customer\_id,

SUM(

CASE

WHEN m.product\_name = 'sushi' THEN 20 \* price

WHEN order\_date BETWEEN '2021-01-07' AND '2021-01-14' THEN 20 \* price

ELSE 10 \* PRICE

END

) AS Points

FROM sales as s

JOIN menu as m

ON s.product\_id = m.product\_id

JOIN members as b

ON b.customer\_id = s.customer\_id

GROUP BY

s.customer\_id

ORDER BY

s.customer\_id;