Danny’s Diner SQL Challenge

**Tables**

1. **Sales**
   1. Customer\_id
   2. Order\_date
   3. Product\_id
2. **Members**
   1. Member\_id
   2. Join\_date
3. **Menu**
   1. Product\_id
   2. Product\_name
   3. Price

# Creating Database And Tables

CREATE SCHEMA dannys\_diner;

SET search\_path = dannys\_diner;

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');

# Questions

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

SELECT

sl.customer\_id,

sum(pr.price) as totalSpent

FROM dannys\_diner.sales sl

JOIN dannys\_diner.menu pr

ON

sl.product\_id = pr.product\_id

GROUP BY 1

ORDER BY 2 DESC;



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

SELECT

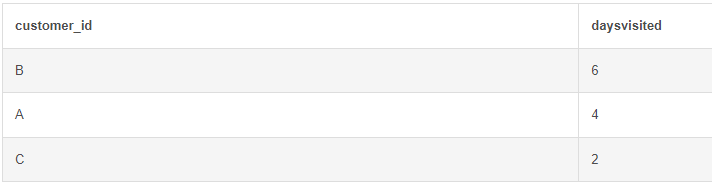
sl.customer\_id,

COUNT(DISTINCT sl.order\_date) as daysVisited

FROM dannys\_diner.sales sl

GROUP BY 1

ORDER BY 2 DESC;



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

SELECT

sl.product\_id,

pr.product\_name,

count(sl.product\_id)

FROM dannys\_diner.sales sl

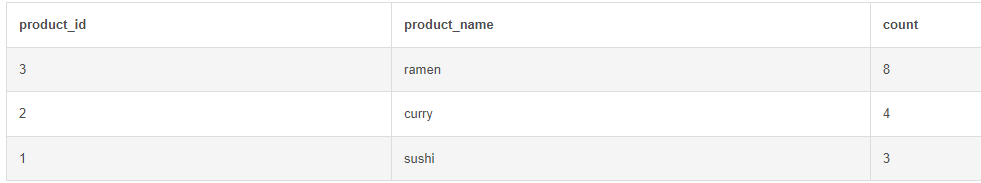
JOIN dannys\_diner.menu pr

ON

sl.product\_id = pr.product\_id

GROUP BY 1,2

ORDER BY 3 DESC;



**5. Which item was the most popular for each customer?**

SELECT

sl.product\_id,

pr.product\_name,

sl.customer\_id,

count(sl.product\_id)

FROM dannys\_diner.sales sl

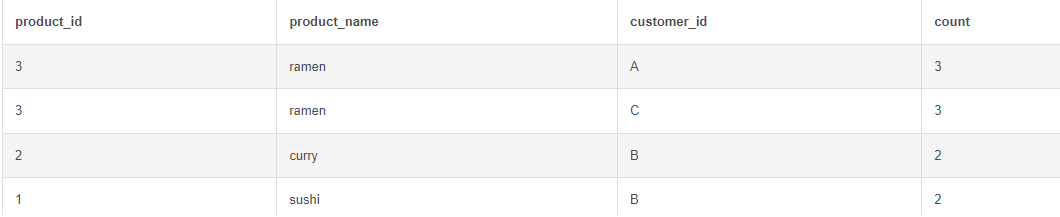
JOIN dannys\_diner.menu pr

ON

sl.product\_id = pr.product\_id

GROUP BY 3,2,1

ORDER BY 4 DESC;



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

SELECT

sl.product\_id,

pr.product\_name,

sl.customer\_id

FROM dannys\_diner.sales sl

JOIN dannys\_diner.menu pr

ON

sl.product\_id = pr.product\_id

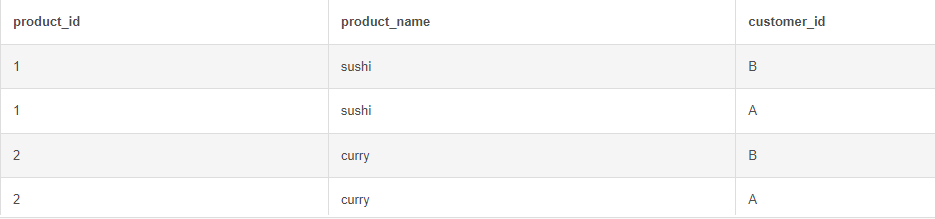
LEFT JOIN dannys\_diner.members mr

ON

mr.customer\_id = sl.customer\_id

where mr.join\_date > sl.order\_date

GROUP BY 1,2,3;



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

SELECT

sl.customer\_id,

COUNT(distinct sl.product\_id) as totalItems,

sum(pr.price) as totalSpent

FROM dannys\_diner.sales sl

JOIN dannys\_diner.menu pr

ON

sl.product\_id = pr.product\_id

LEFT JOIN dannys\_diner.members mr

ON

mr.customer\_id = sl.customer\_id

where mr.join\_date > sl.order\_date

GROUP BY 1

ORDER BY 3 DESC;



**8. What is the points earned by each customer when $1 spent equals to 10 points?**

SELECT

sl.customer\_id,

sum(pr.price) as totalSpent,

sum(pr.price) \* 10 as totalPoints

FROM dannys\_diner.sales sl

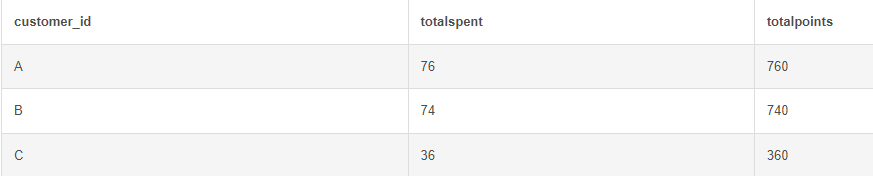
JOIN dannys\_diner.menu pr

ON

sl.product\_id = pr.product\_id

GROUP BY 1

ORDER BY 3 DESC;

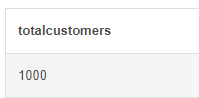


Foodie-Fi SQL Challenge

**Tables**

1. **Plans**
   1. Plan\_id
   2. Plan\_name
   3. Price
2. **Subscriptions**
   1. Customer\_id
   2. Plan\_id
   3. Start\_date
3. **How many customers has Foodie-Fi ever had?**

SELECT COUNT(DISTINCT customer\_id) as totalCustomers FROM foodie\_fi.subscriptions;



1. **What is the customer count and percentage of customers who have churned rounded to 1 decimal place?**

SELECT COUNT(DISTINCT customer\_id) as totalCustomersChurned

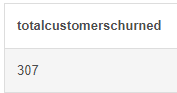
FROM foodie\_fi.subscriptions sb

LEFT JOIN foodie\_fi.plans pl

ON

sb.plan\_id = pl.plan\_id

WHERE sb.plan\_id = 4;



1. **What is the monthly distribution of trial plan start\_date values for our dataset - use the start of the month as the group by value**

SELECT EXTRACT('month' FROM start\_date) as months,

COUNT(plan\_id) as trialPlans

FROM foodie\_fi.subscriptions sb

WHERE plan\_id = 0

GROUP BY 1

ORDER BY 2 DESC;

