Q1) List all customers and the products they ordered with the order date. (Inner join)

Query:

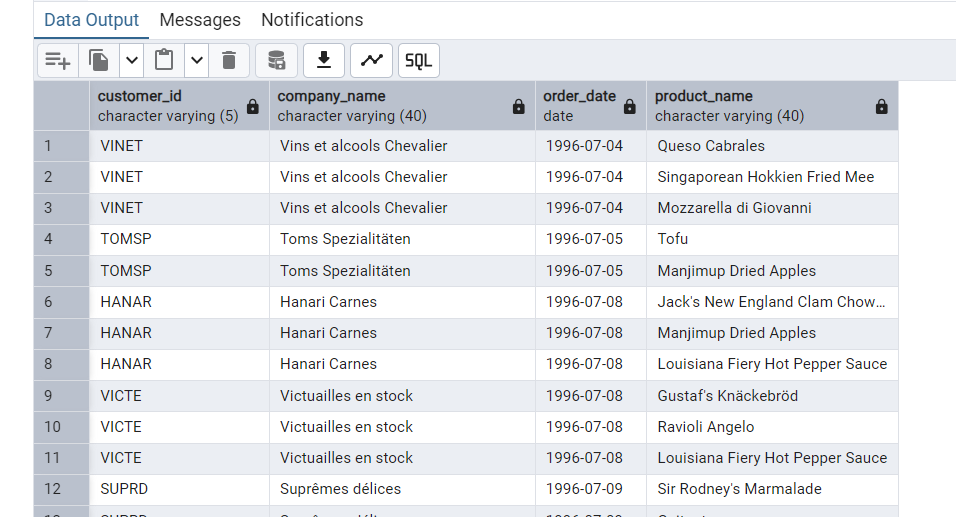
select c.customer\_id, c.company\_name, o.order\_date, p.product\_name from

customers as c inner join orders as o on c.customer\_id = o.customer\_id

left join order\_details as od on o.order\_id = od.order\_id

left join products as p on od.product\_id = p.product\_id

Output:



Q2) Show each order with customer, employee, shipper, and product info — even if some parts are missing.

Query:

select e.first\_name, e.last\_name, s.company\_name, p.product\_name, c.customer\_id, c.company\_name, o.order\_id from products as p

left join order\_details as od on p.product\_id = od.product\_id

left join orders as o on od.order\_id = o.order\_id

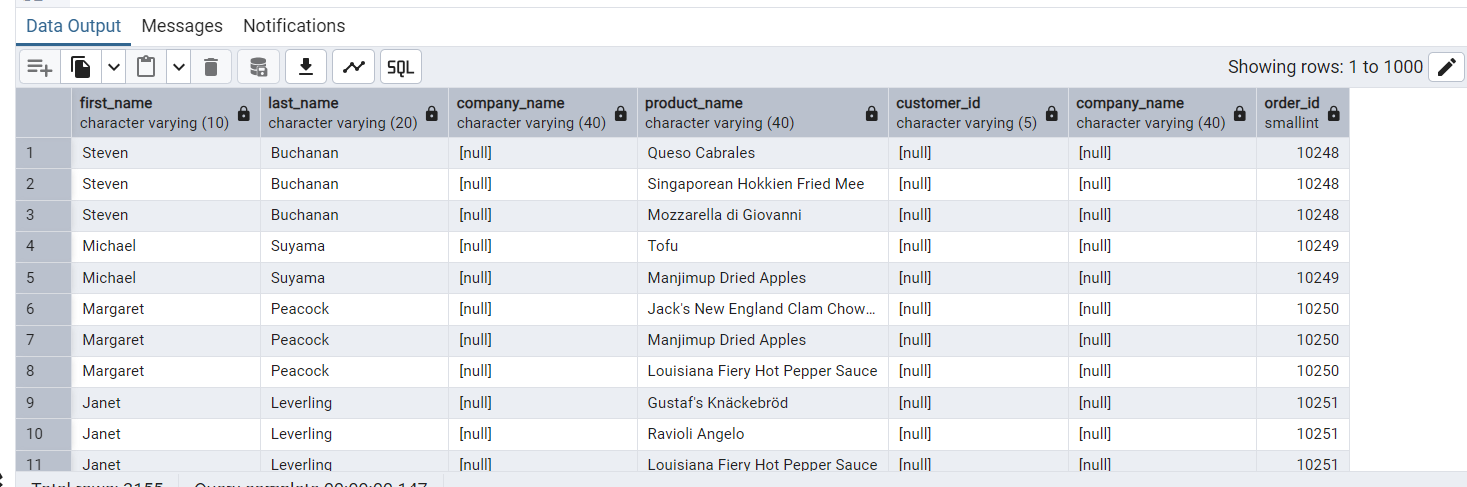
left join employees as e on o.employee\_id = e.employee\_id

left join orders as oa on e.employee\_id = oa.order\_id

left join customers as c on oa.customer\_id = c.customer\_id

left join shippers as s on c.company\_name= s.company\_name

Output:



Q3) --Show all order details and products (include all products even if they were never ordered). (Right Join)

Query:

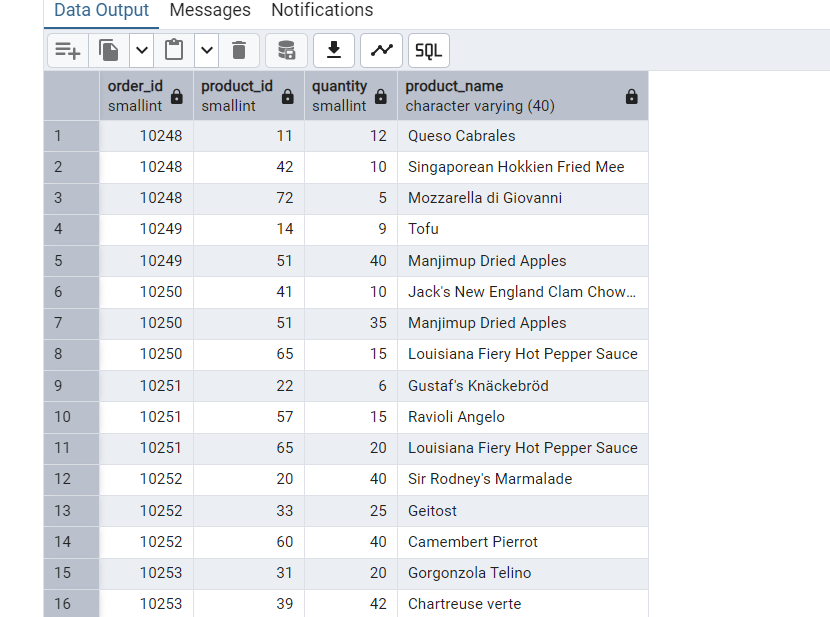
select \* from order\_details --#order\_id, product\_id, quanity

select \* from products --#product\_id, product\_name

select od.order\_id, od.product\_id, od.quantity, p.product\_name from order\_details as od

right join products as p on p.product\_id = od.product\_id

Output:



Q4) List all product categories and their products — including categories that have no products, and products that are not assigned to any category.(Outer Join)

Query:

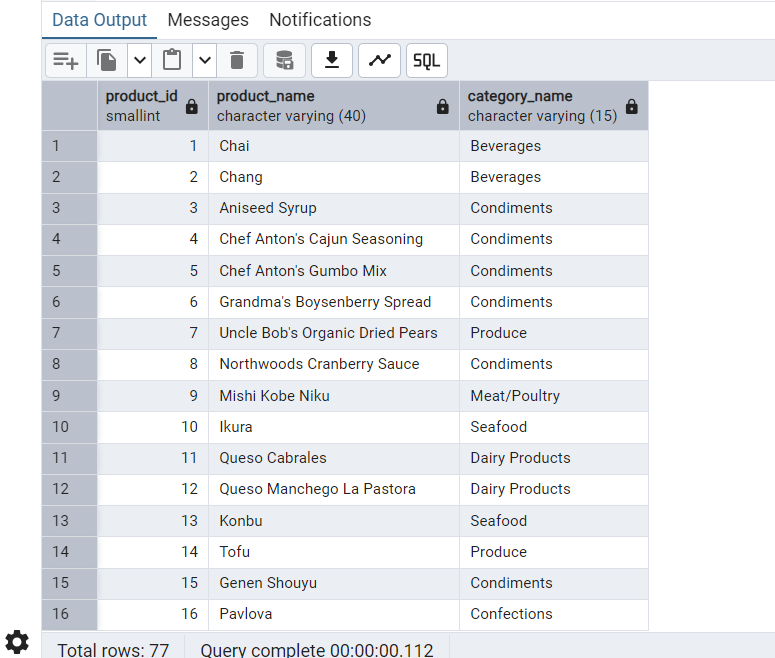
select \* from products---#product\_id, product\_name, #category\_id

select \* from categories -- #category\_id, category\_name

select p.product\_id, p.product\_name, c.category\_name from products as p

full outer join categories as c on c.category\_id = p.category\_id

Output:



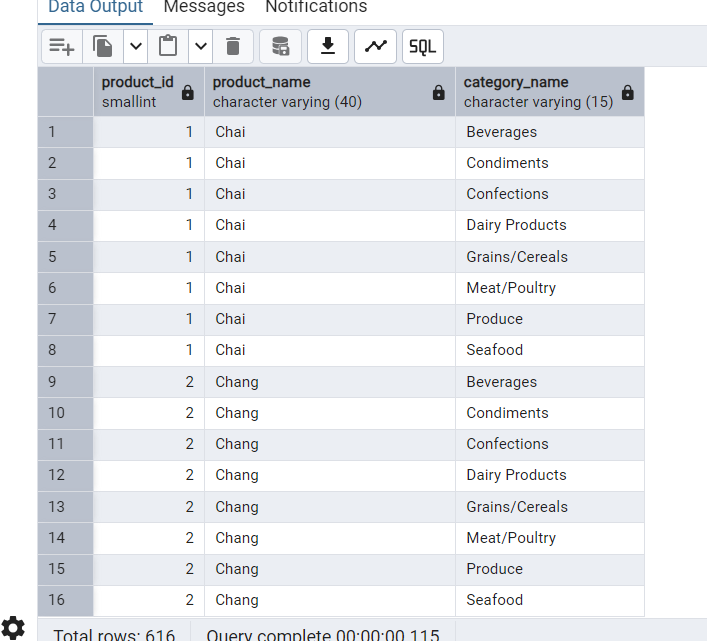
Q5) Show all possible product and category combinations

Query:

select p.product\_id, p.product\_name, c.category\_name from products as p

cross join categories as c

Output:



---Q7) List all customers who have not selected a shipping method.

Query:

select \* from customers--#customer\_id, #company\_name

select \* from shippers --#company\_name

select \* from orders where ship\_via = null --#customer\_id,#ship\_via

select c.customer\_id, c.company\_name,o.ship\_via from orders as o

left join customers as c on o.customer\_id = c.customer\_id

left join shippers as s on c.company\_name = s.company\_name where o.ship\_via is null

Output:

