DAY 4 -ASSIGNMENT

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

-- Tables used: customers, orders, order\_details, products

-- Output should have below columns:

-- companyname AS customer,

-- orderid,

-- productname,

-- quantity,

-- orderdate

SELECT \* FROM CUSTOMERS

SELECT \* FROM ORDERS

SELECT \* FROM ORDER\_DETAILS

SELECT \* FROM PRODUCTS

-------Query to get common columns from multiple tables--------------

SELECT column\_name

FROM INFORMATION\_SCHEMA.COLUMNS

WHERE table\_name IN ( 'products','order\_details')

GROUP BY column\_name

HAVING COUNT(DISTINCT table\_name) > 1;

SELECT company\_name AS customer, o.order\_id,p.product\_name, od.quantity, o.order\_date

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FROM customers

INNER JOIN orders o

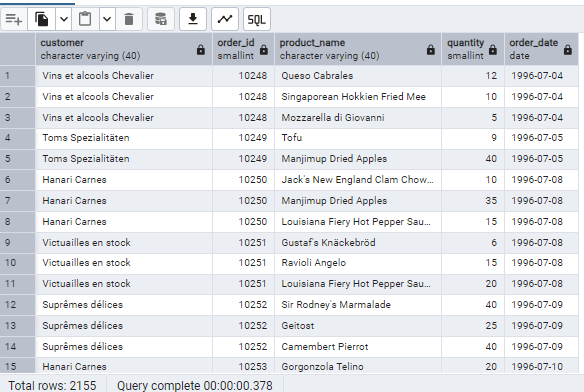
ON o.customer\_id = customers.customer\_id

INNER JOIN order\_details od

ON od.order\_id=o.order\_id

INNER JOIN products p

ON p.product\_id=od.product\_id



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-- 2. Show each order with customer, employee, shipper, and product info — even if some parts are missing. (Left Join)

-- Tables used: orders, customers, employees, shippers, order\_details, products

SELECT \* FROM shippers

SELECT \* FROM order\_details

SELECT o.order\_id,

c.company\_name AS customer,

e.first\_name || ' ' || e.last\_name AS employee,

s.company\_name AS shipper,

p.product\_name,

od.quantity,

o.order\_date FROM orders o

LEFT JOIN customers c

ON c.customer\_id = o.customer\_id

LEFT JOIN employees e

ON o.employee\_id= e.employee\_id

LEFT JOIN shippers s

ON o.ship\_via=s.shipper\_id

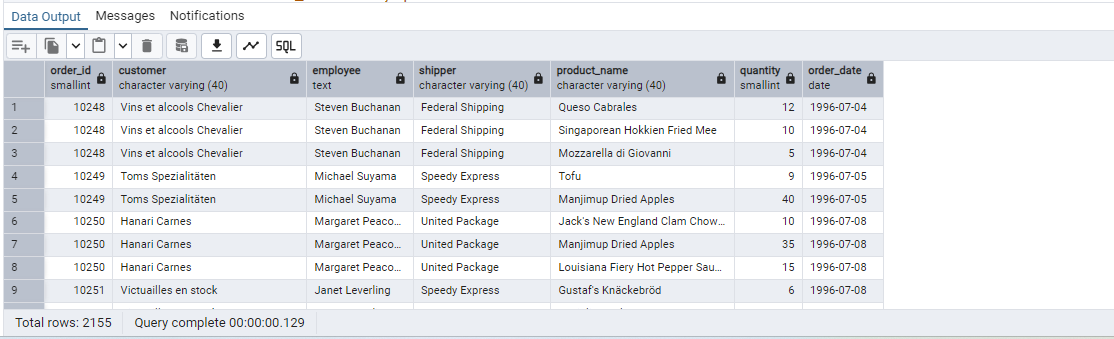
LEFT JOIN order\_details od

ON o.order\_id=od.order\_id

LEFT JOIN products p

ON od.product\_id= p.product\_id

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

-- Tables used: order\_details, products

-- Output should have below columns:

-- orderid,

-- productid,

-- quantity,

-- productname

SELECT order\_id,

p.product\_id,

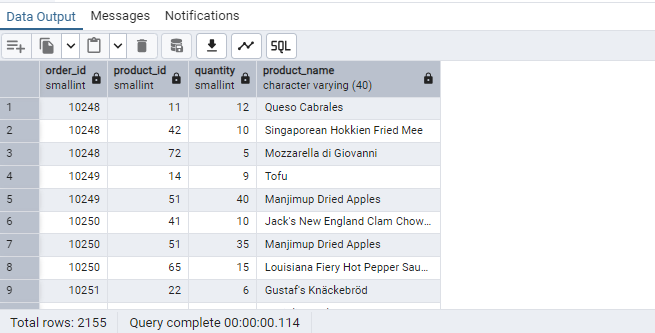
quantity,

p.product\_name

FROM order\_details od

RIGHT JOIN products p

ON p.product\_id= od.product\_id



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

-- Tables used: categories, products

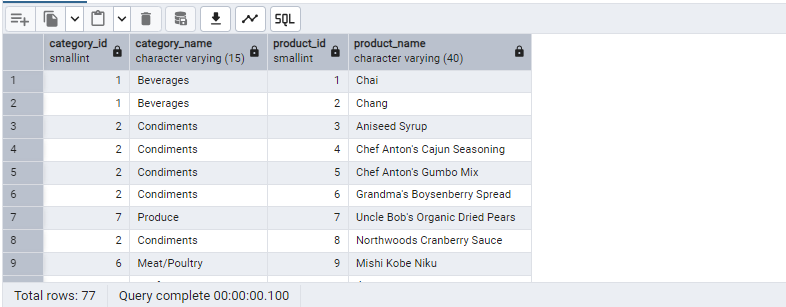
select \* from categories

select \* from products

SELECT c.category\_id,c. category\_name,p.product\_id, p.product\_name

FROM products p

FULL OUTER JOIN categories c

ON c.category\_id= p.category\_id

-- 5. Show all possible product and category combinations (Cross join).

------ cross join-----

-- It multiplies the rows of the first table with the rows of the second table.

-- It does not require any condition (like ON or USING).

-------Query to get common columns from multiple tables--------------

SELECT column\_name

FROM INFORMATION\_SCHEMA.COLUMNS

WHERE table\_name IN ( 'categories','products')

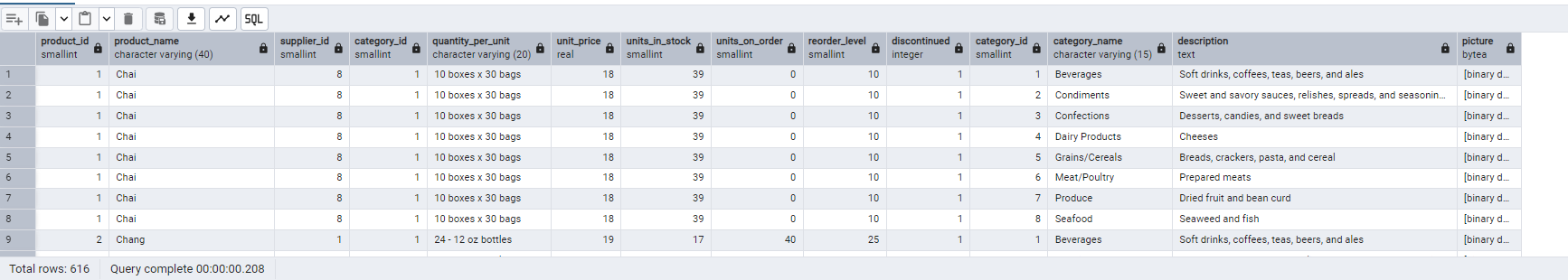
GROUP BY column\_name

HAVING COUNT(DISTINCT table\_name) > 1;

select \* from categories

Main quary:

SELECT \* FROM products p

CROSS JOIN categories c

-- 6. Show all employees and their manager(Self join(left join))

select \* from employees

SELECT e.employee\_id,

e.first\_name ||' '|| e.last\_name as Employee\_name, m.employee\_id AS manager\_id,

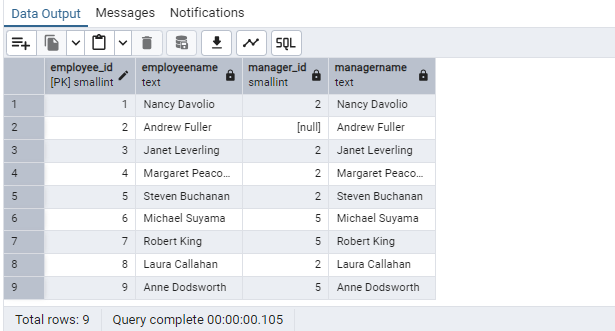
m.first\_name ||' '|| m.last\_name as Manager\_name

FROM employees e

LEFT JOIN employees m

ON m.employee\_id= e.reports\_to

e.employee\_id;



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

-- Tables used: customers, orders

-- (Left Join, WHERE o.shipvia IS NULL)

select \* from customers

select \* from orders

SELECT c.customer\_id FROM customers c

LEFT JOIN orders o

ON c.customer\_id= o.customer\_id

WHERE ship\_via IS NULL

