**DAY 4**

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

customers.company\_name AS customers,

orders.order\_id,

products.product\_name,

order\_details.quantity,

orders.order\_date

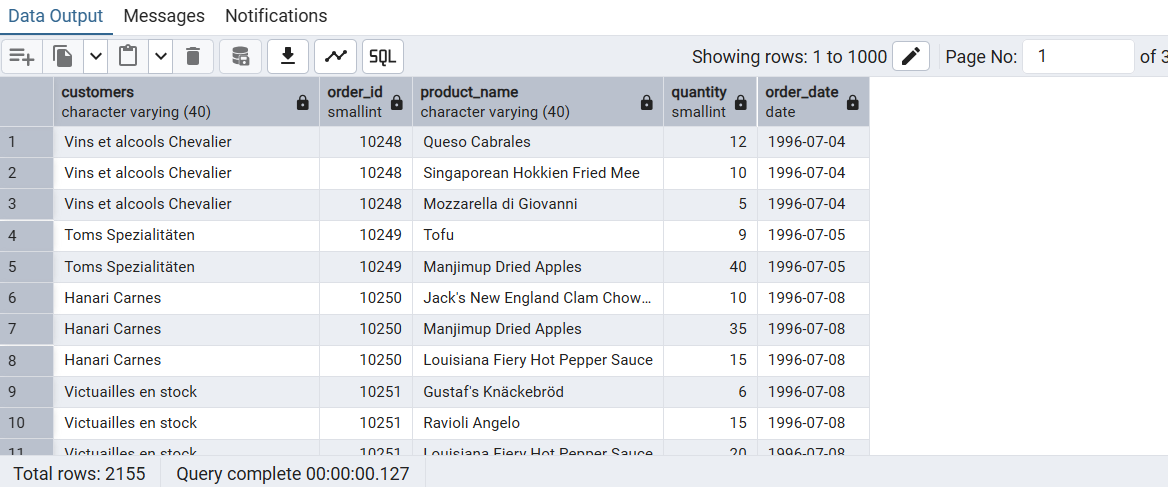
FROM

customers

INNER JOIN orders ON customers.customer\_id = orders.customer\_id

INNER JOIN order\_details ON orders.order\_id = order\_details.order\_id

INNER JOIN products ON order\_details.product\_id = products.product\_id;



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

orders.order\_id,

customers.customer\_id,

(employees.first\_name || ' '|| employees.last\_name ) AS employees\_name,

shippers.shipper\_id,

products.product\_name,

order\_details.quantity

FROM

orders

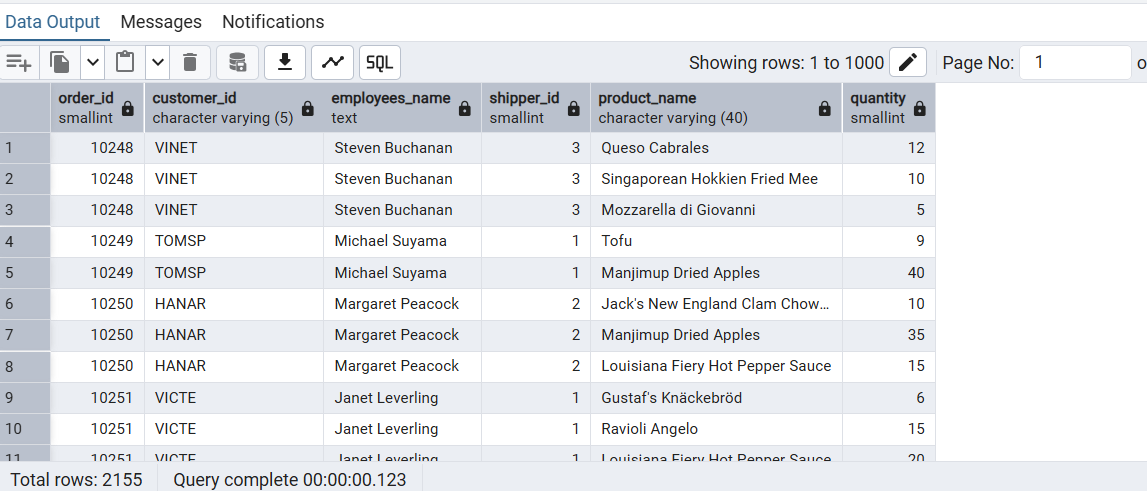
LEFT JOIN customers ON orders.customer\_id = customers.customer\_id

LEFT JOIN employees ON orders.employee\_id = employees.employee\_id

LEFT JOIN shippers ON orders.ship\_via = shippers.shipper\_id

LEFT JOIN order\_details ON orders.order\_id = order\_details.order\_id

LEFT JOIN products ON order\_details.product\_id = products.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\_details.order\_id,

products.product\_id,

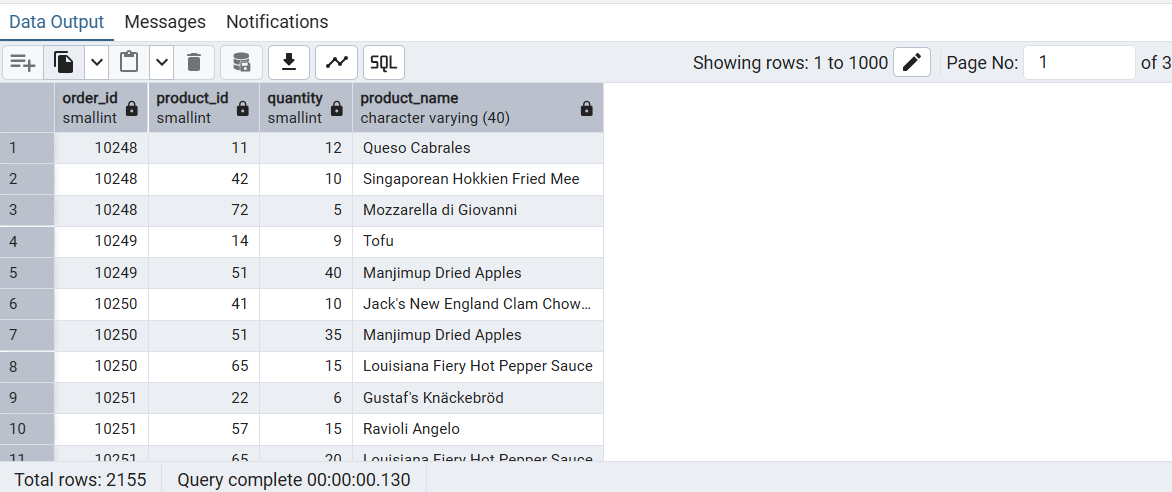
order\_details.quantity,

products.product\_name

FROM

order\_details

RIGHT JOIN products ON order\_details.product\_id = products.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**

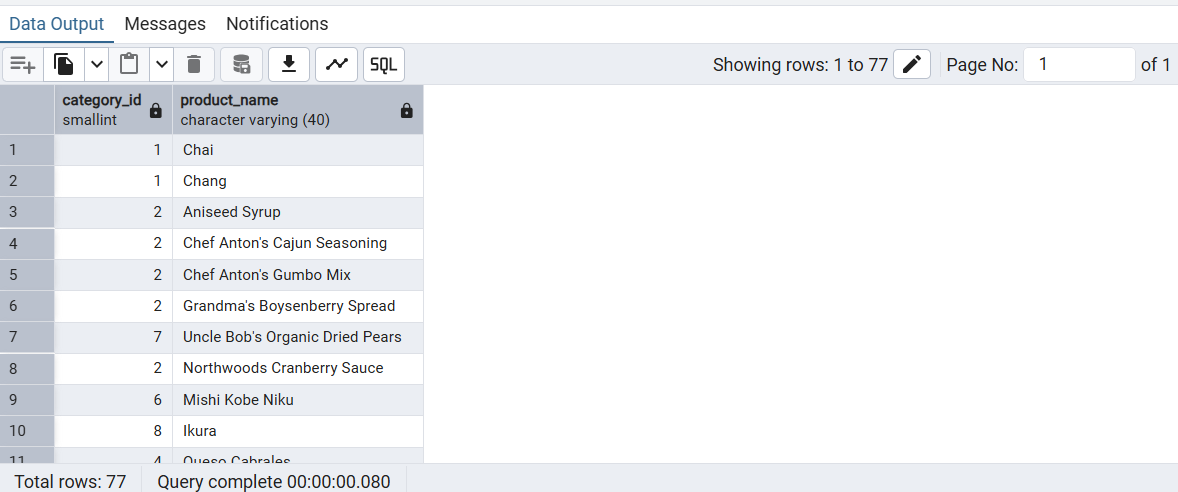
**categories.category\_id,**

**products.product\_name**

**FROM**

**categories**

**FULL OUTER JOIN products ON categories.category\_id = products.category\_id;**

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

SELECT

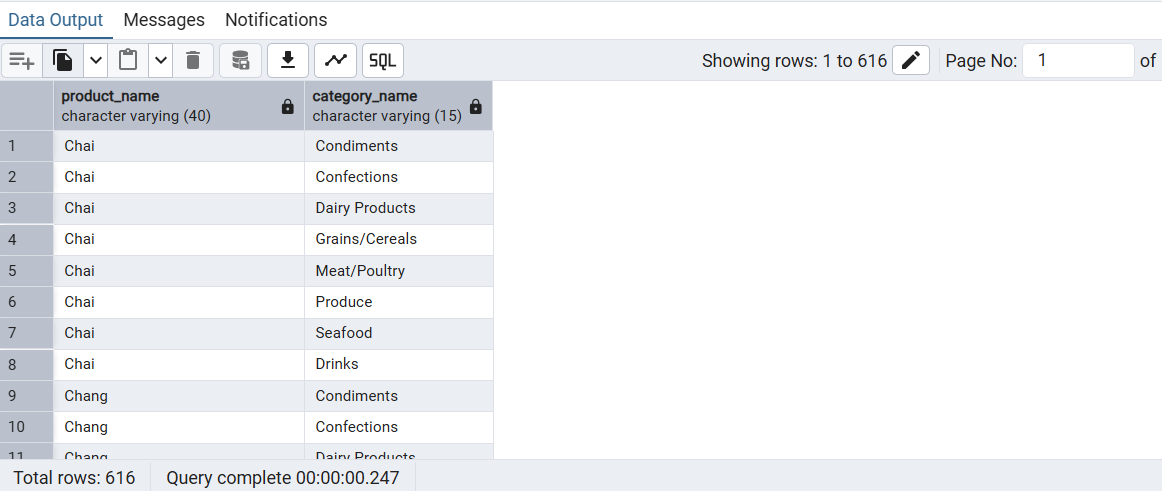
products.product\_name,

categories.category\_name

FROM

products

CROSS JOIN categories;



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

SELECT

e1.employee\_id AS employee1\_id,

e1.first\_name || ' ' || e1.last\_name AS employee1\_name,

e2.employee\_id AS employee2\_id,

e2.first\_name || ' ' || e2.last\_name AS employee2\_name,

m.employee\_id AS manager\_id,

m.first\_name || ' ' || m.last\_name AS manager\_name

FROM

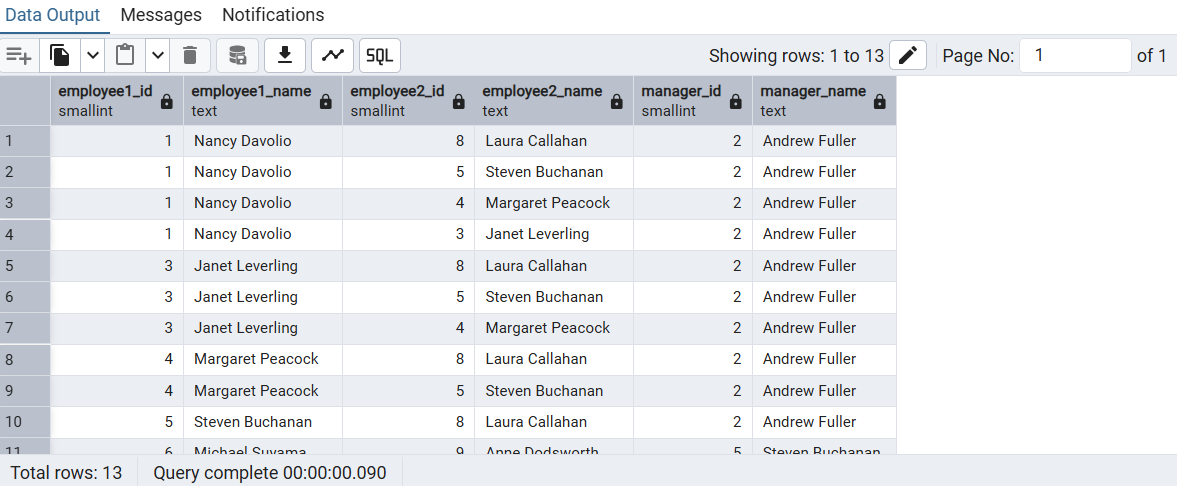
employees e1

JOIN employees e2

ON e1.reports\_to = e2.reports\_to AND e1.employee\_id < e2.employee\_id

JOIN employees m

ON e1.reports\_to = m.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 DISTINCT

customers.customer\_id,

customers.company\_name

FROM

customers

JOIN orders ON customers.customer\_id = orders.customer\_id

WHERE

orders.ship\_via IS NULL;

