**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

c.company\_name AS customer,

o.order\_id,

p.product\_name,

od.quantity,

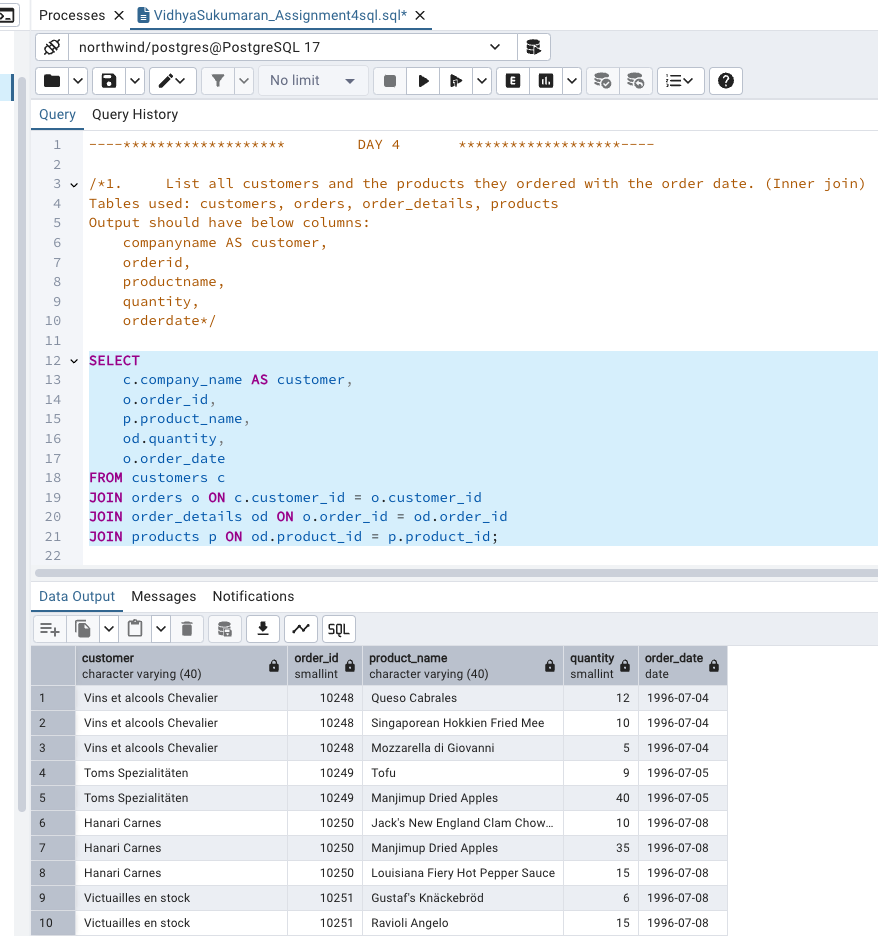
o.order\_date

FROM customers c

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

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

JOIN products p ON od.product\_id = p.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**

**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**

**FROM orders o**

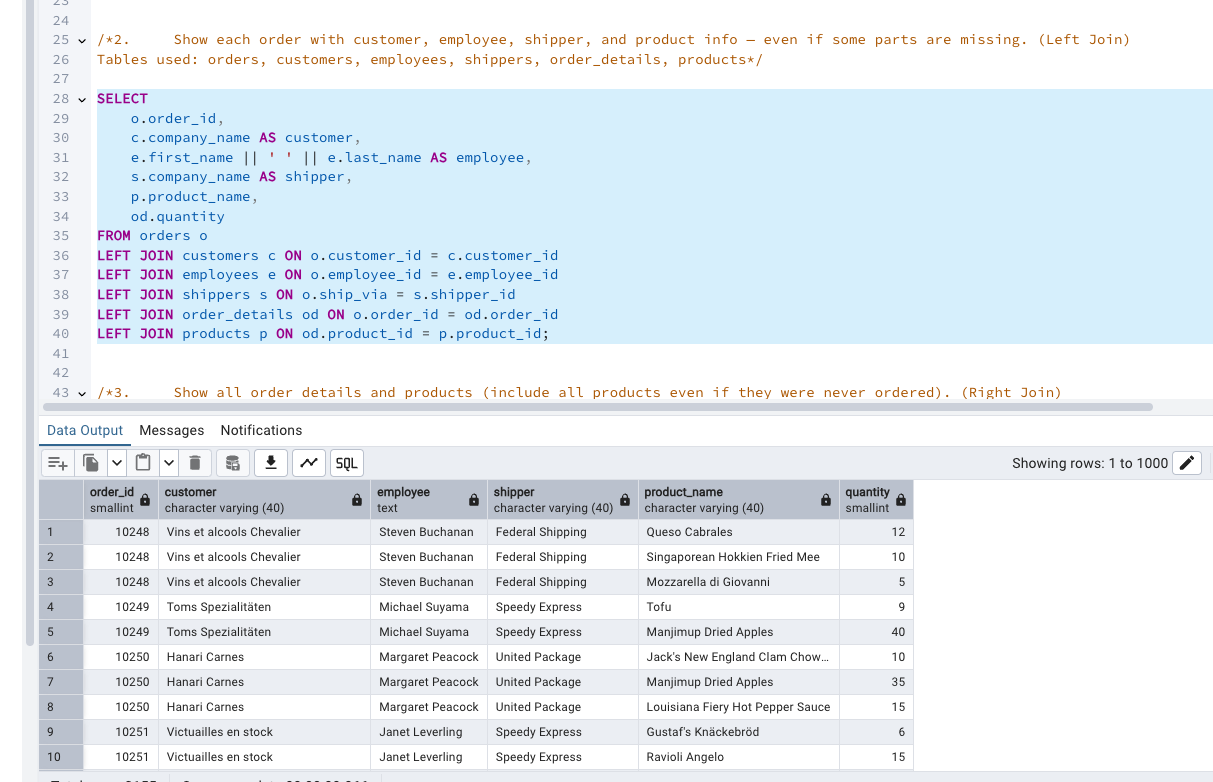
**LEFT JOIN customers c ON o.customer\_id = c.customer\_id**

**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;**



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

**Tables used: order\_details, products**

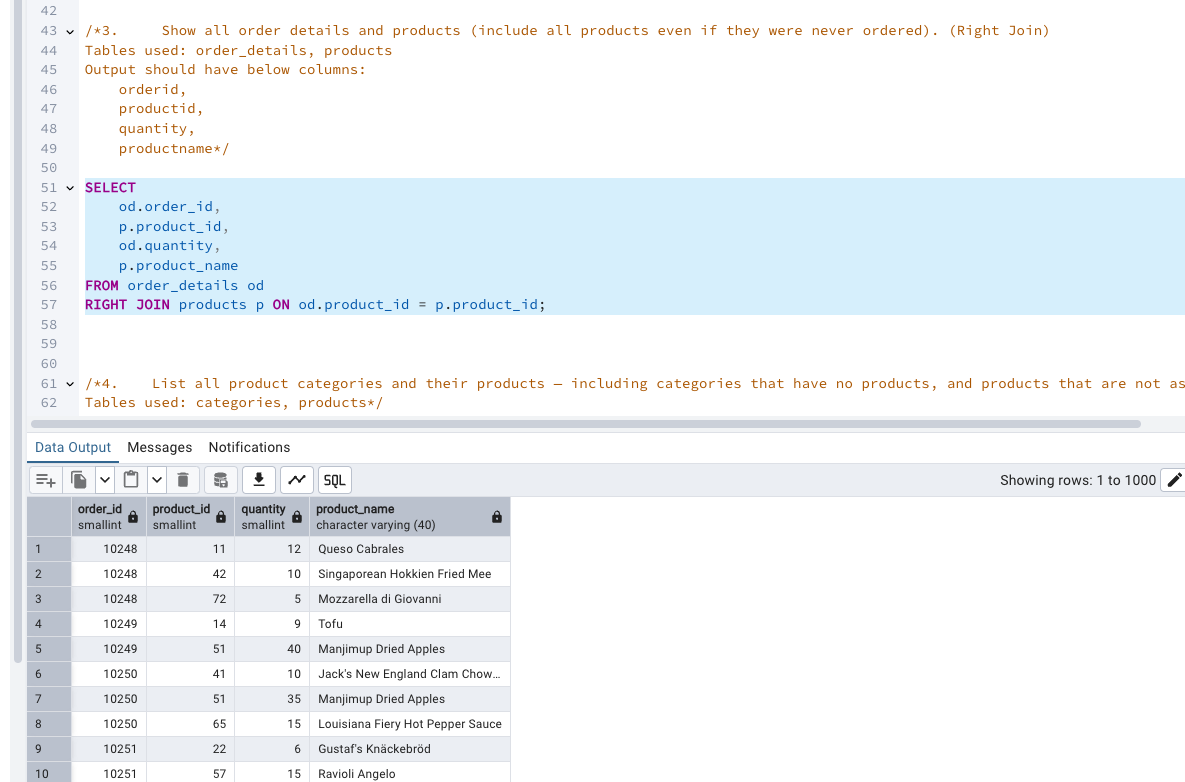
**Output should have below columns:**

    orderid,

    productid,

    quantity,

    productname



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**

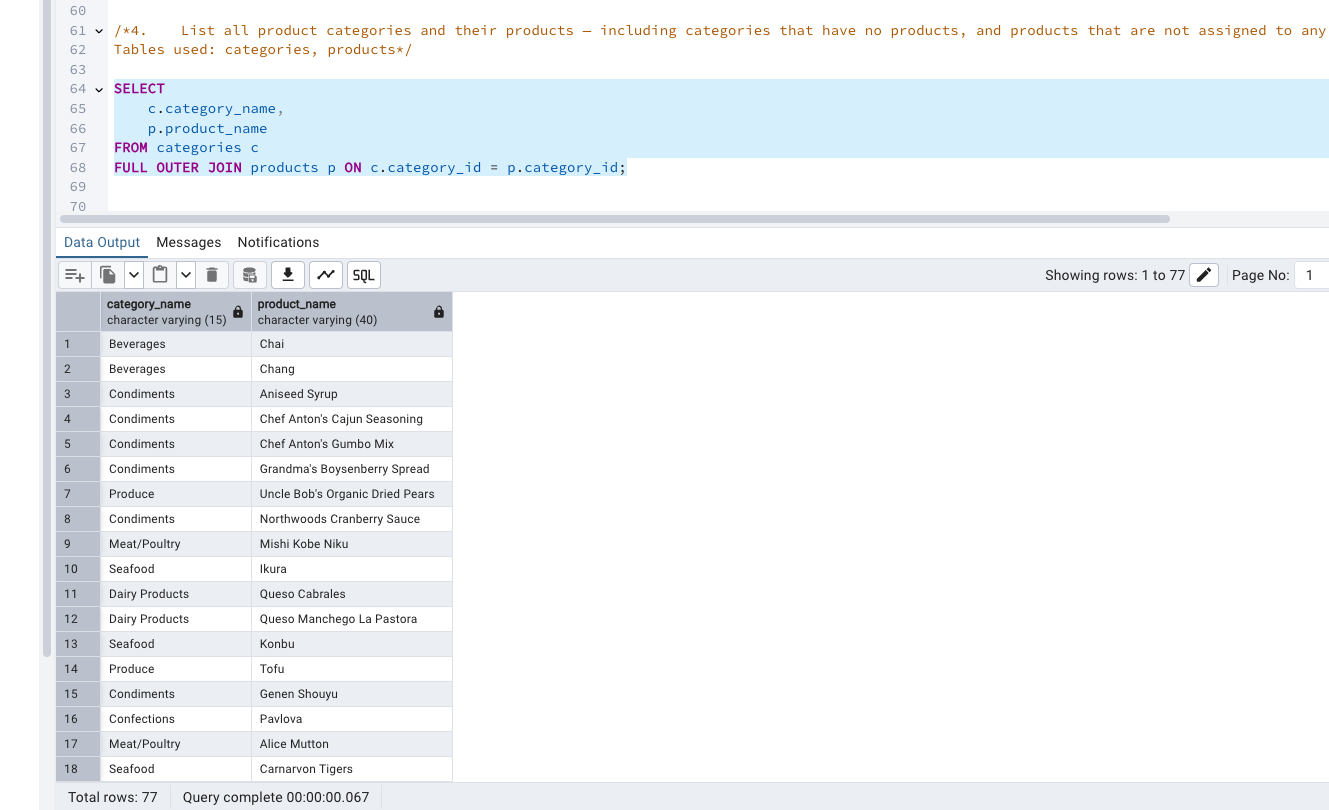
**SELECT**

**c.category\_name,**

**p.product\_name**

**FROM categories c**

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



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

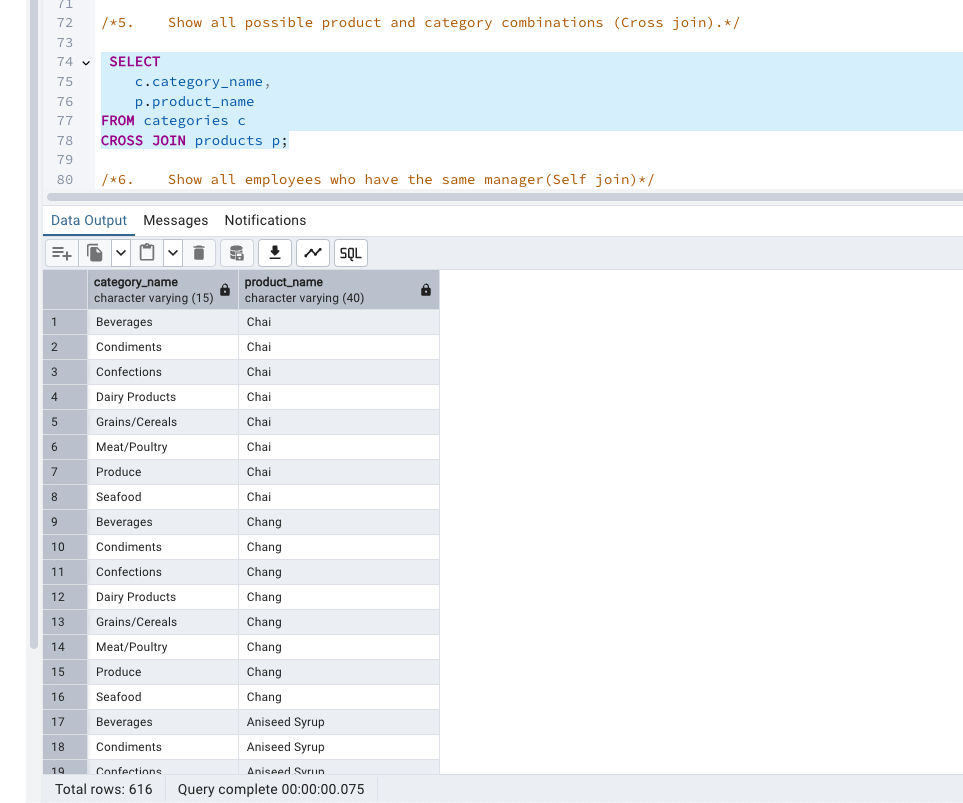
 SELECT

c.category\_name,

p.product\_name

FROM categories c

CROSS JOIN products p;



6. Show all employees who have the same manager(Self join)

 SELECT

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

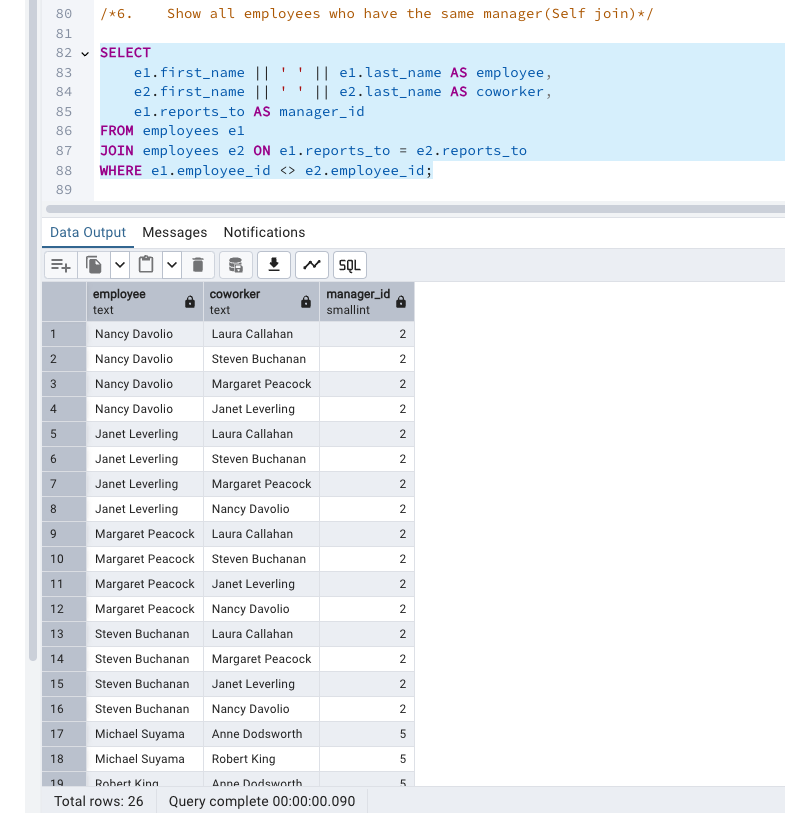
e2.first\_name || ' ' || e2.last\_name AS coworker,

e1.reports\_to AS manager\_id

FROM employees e1

JOIN employees e2 ON e1.reports\_to = e2.reports\_to

WHERE e1.employee\_id <> e2.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

c.company\_name

FROM customers c

LEFT JOIN orders o ON c.customer\_id = o.customer\_id

WHERE o.ship\_via IS NULL;

