**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 \* FROM customers**

**SELECT \* FROM products**

**SELECT \* FROM orders**

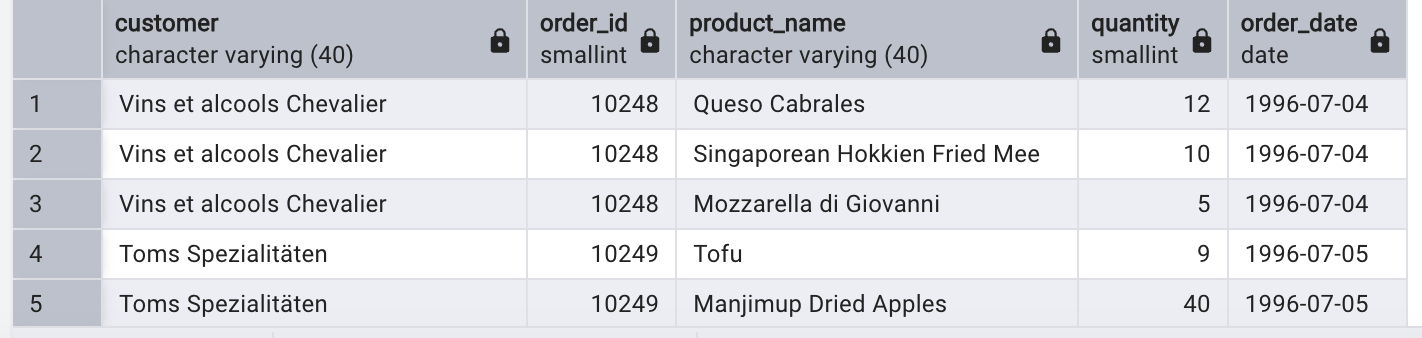
**SELECT \* FROM order\_details**

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

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

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

**INNER JOIN products p ON od.product\_id = p.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 o.order\_id,c.customer\_id,e.employee\_id,s.shipper\_id,p.product\_id,p.product\_name 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 order\_details od ON o.order\_id = od.order\_id**

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

**LEFT JOIN shippers s ON o.ship\_via = s.shipper\_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,

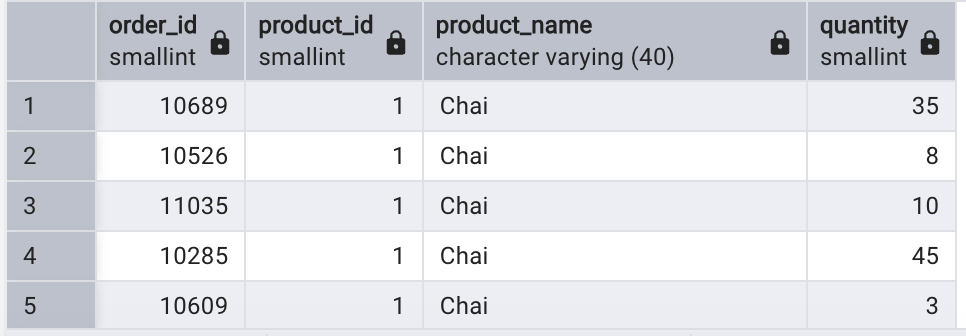
    quantity,

    productname

**SELECT o.order\_id,p.product\_id,p.product\_name,o.quantity**

**FROM order\_details o**

**RIGHT JOIN products p ON o.product\_id = p.product\_id**

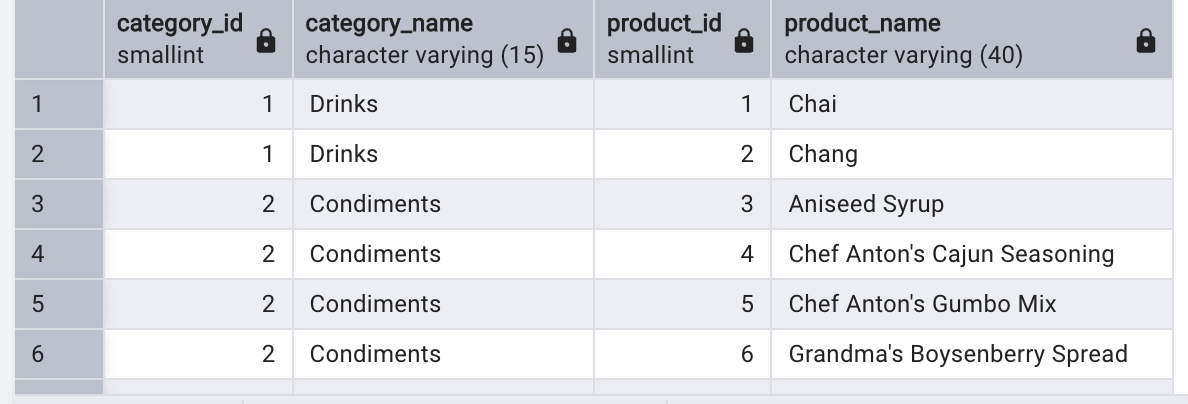
**ORDER BY product\_id**

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

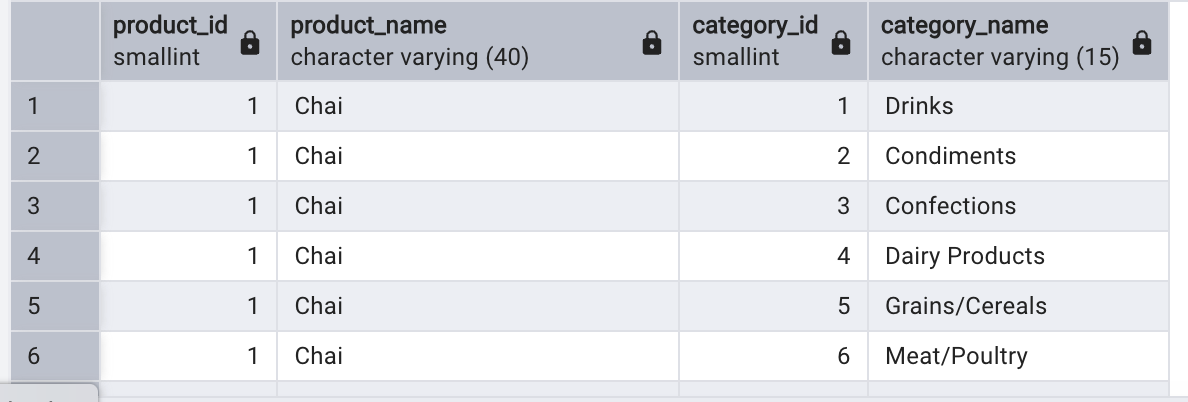
**FROM categories c**

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

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

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

**FROM products p**

**CROSS JOIN categories c**

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

**SELECT e.employee\_id,**

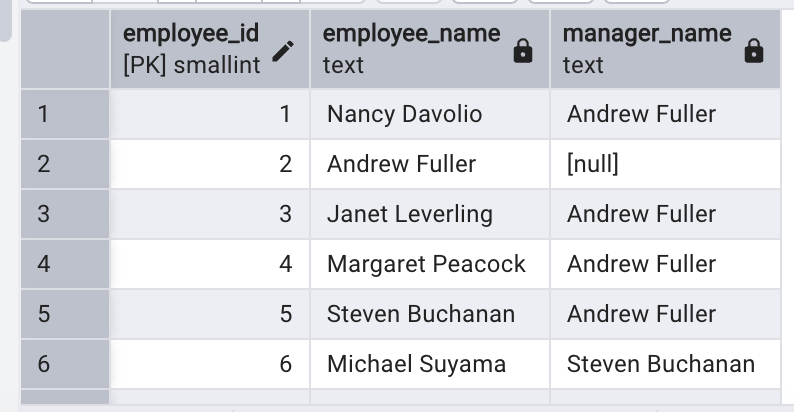
**e.first\_name||' '||e.last\_name AS employee\_name,**

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

**FROM employees e**

**LEFT JOIN employees m ON e.reports\_to = m.employee\_id**

**ORDER BY e.employee\_id**



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

**Tables used:** customers, orders

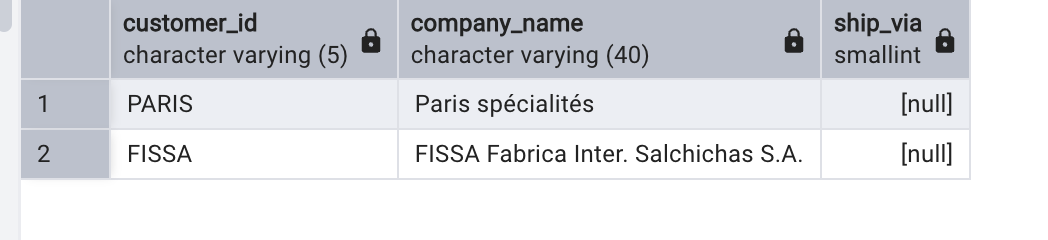
**(Left Join, WHERE o.shipvia IS NULL)**

**SELECT c.customer\_id,c.company\_name,o.ship\_via**

**FROM customers c**

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

**WHERE o.ship\_via IS NULL**

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