  Assignment 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 customers,

o.order\_id,

p.product\_name,

od.quantity,

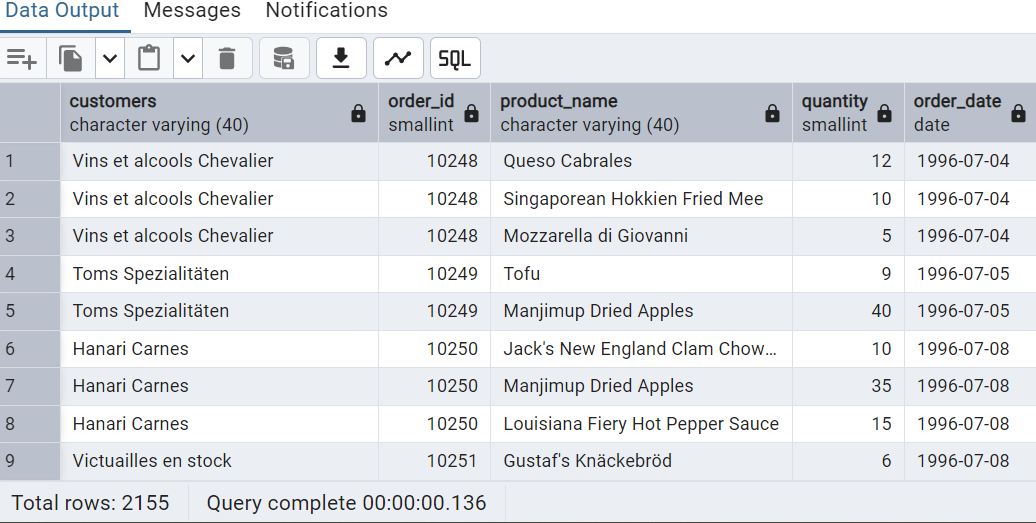
o.order\_date

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;



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 customers,

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

s.company\_name AS shippers,

p.product\_name,

od.quantity,

o.order\_date

FROM orders o

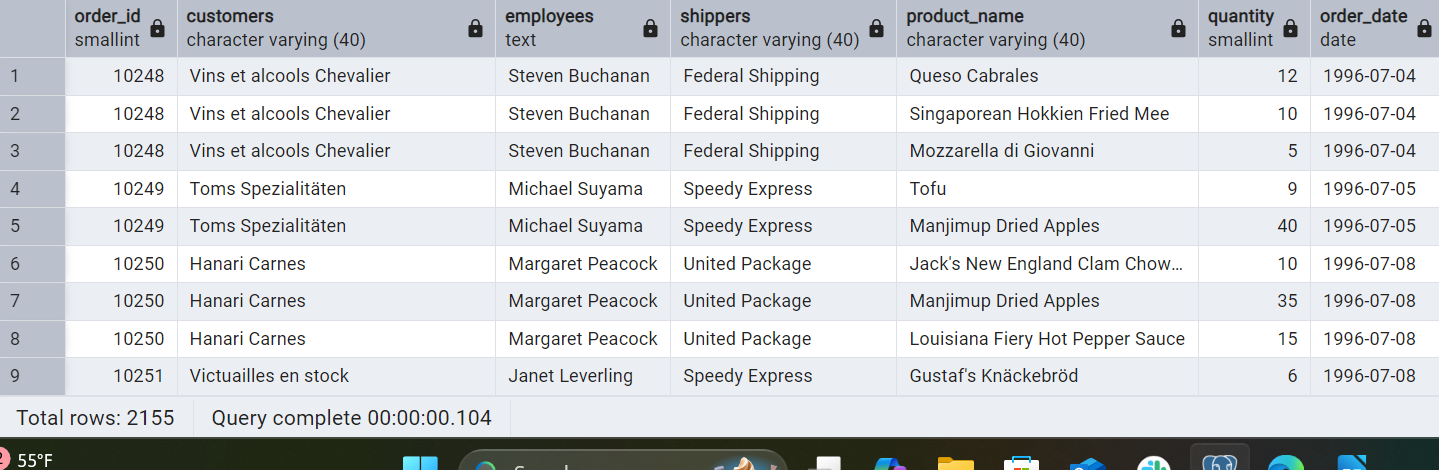
LEFT JOIN customers c ON o.customer\_id = c.customer\_id

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

SELECT

od.order\_id,

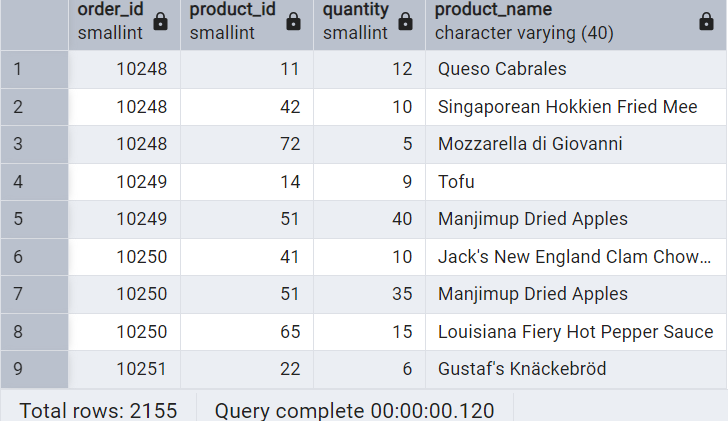
p.product\_id,

od.quantity,

p.product\_name

FROM order\_details od

RIGHT JOIN products p ON od.product\_id = p.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\_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).

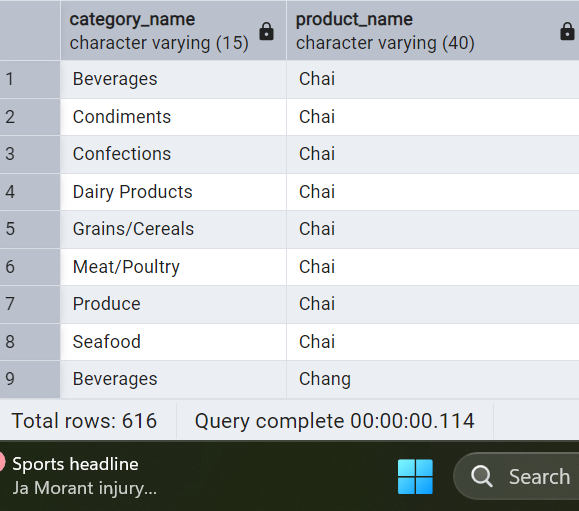
SELECT

c.category\_name,

p.product\_name

FROM categories c

CROSS JOIN products p;



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

SELECT

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

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

e1.reports\_to AS manager\_id,

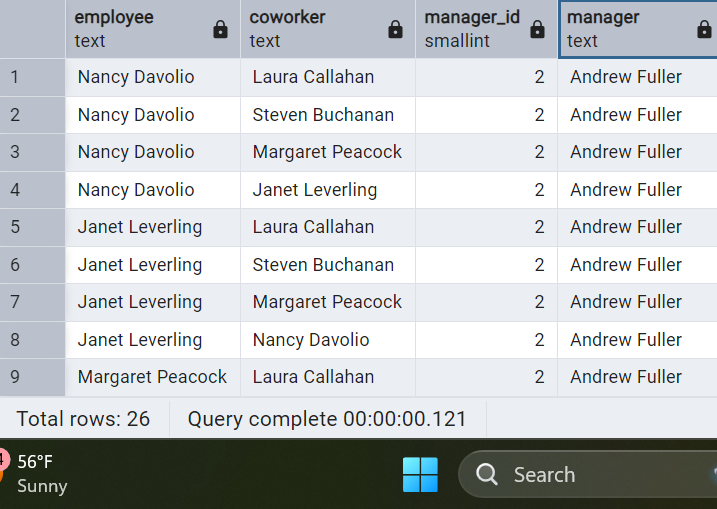
m.first\_name || ' ' || m.last\_name AS manager

FROM employees e1

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

LEFT JOIN employees m ON e1.reports\_to = m.employee\_id

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.customer\_id,

c.company\_name

FROM customers c

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

WHERE o.ship\_via IS NULL;

