JAYA 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;

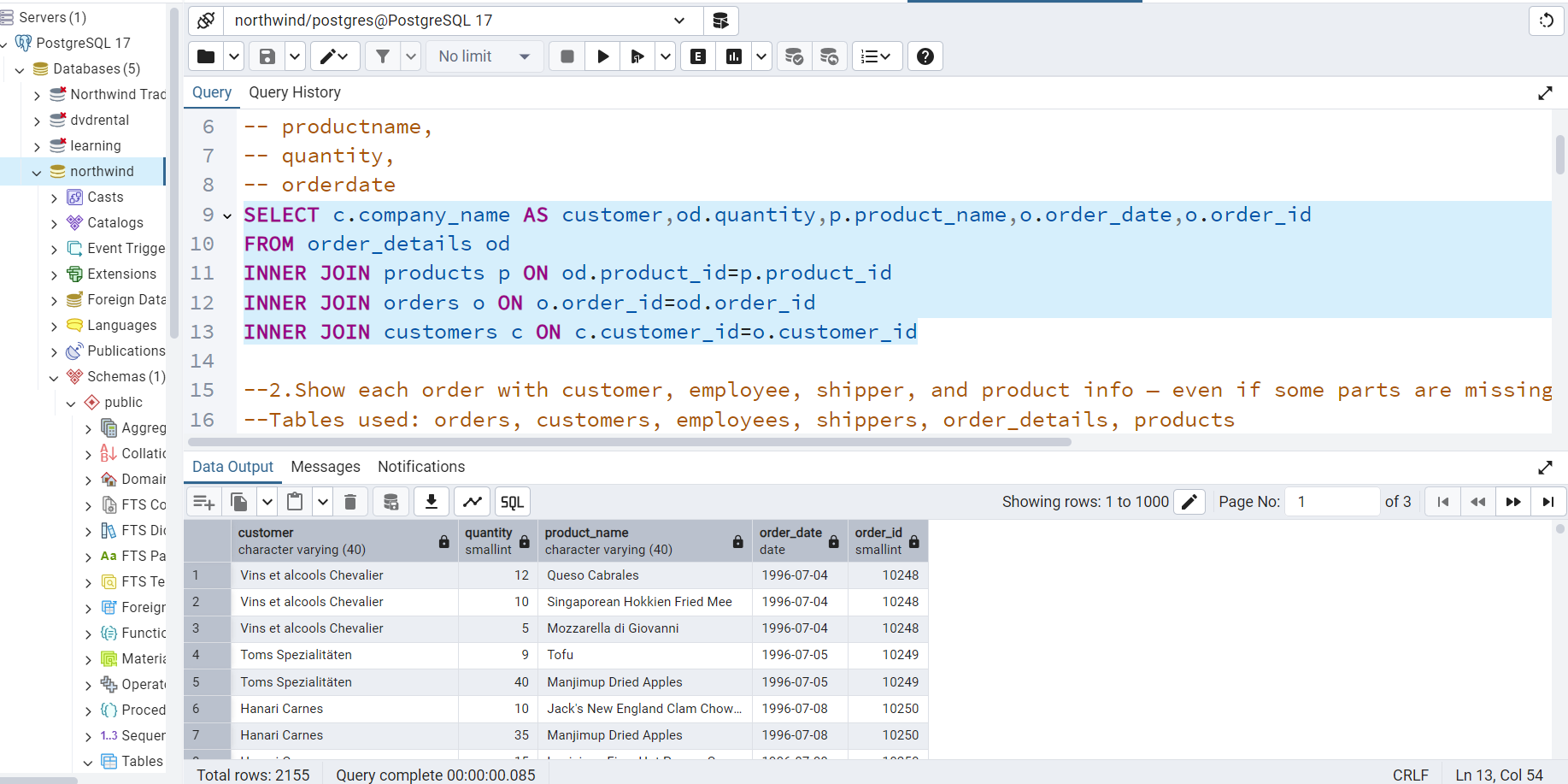
SELECT c.company\_name AS customer,od.quantity,p.product\_name,o.order\_date,o.order\_id

FROM order\_details od

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

INNER JOIN orders o ON o.order\_id=od.order\_id

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

select \* from customers

select \* from employees

select \* from shippers

select \* from order\_details

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

SELECT column\_name

FROM INFORMATION\_SCHEMA.COLUMNS

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

GROUP BY column\_name

HAVING COUNT(DISTINCT table\_name) > 1;

SELECT \*

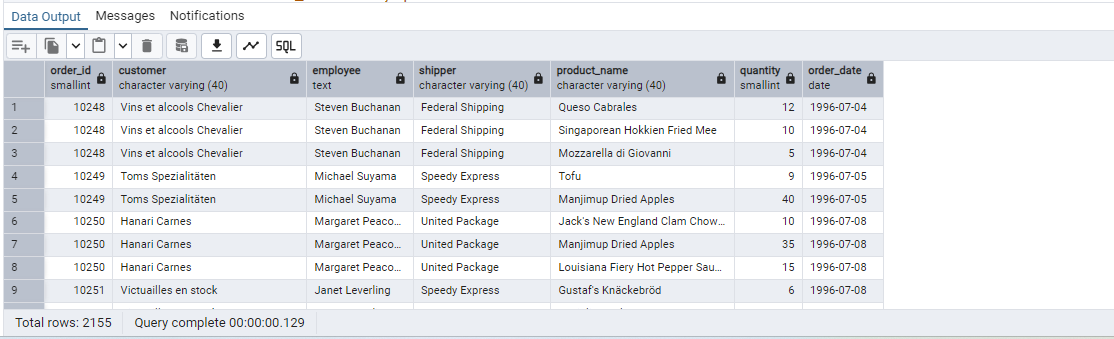
FROM orders o

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

LEFT JOIN employees e ON e.employee\_id=o.employee\_id

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

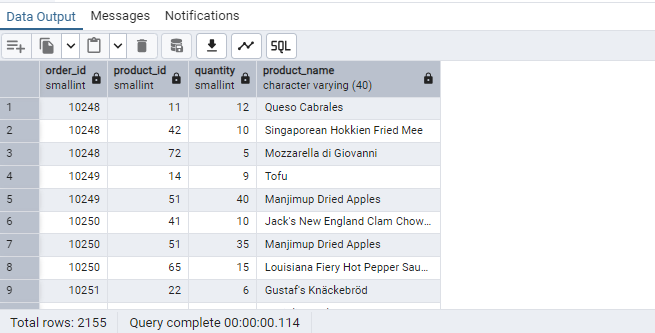
-- productname

SELECT p.product\_id,p.product\_name,od.order\_id,od.quantity

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 \* from categories

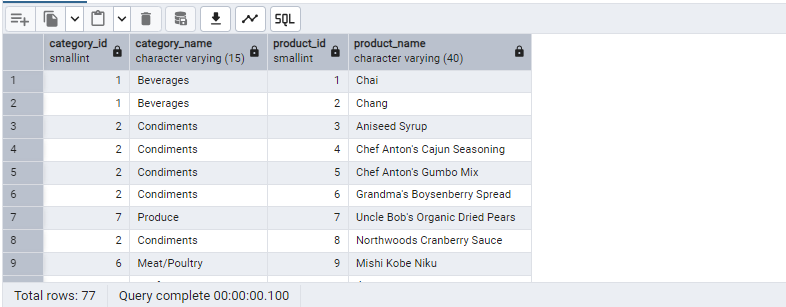
select \* from products

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

FROM products p

FULL OUTER JOIN categories c

ON p.category\_id=c.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')

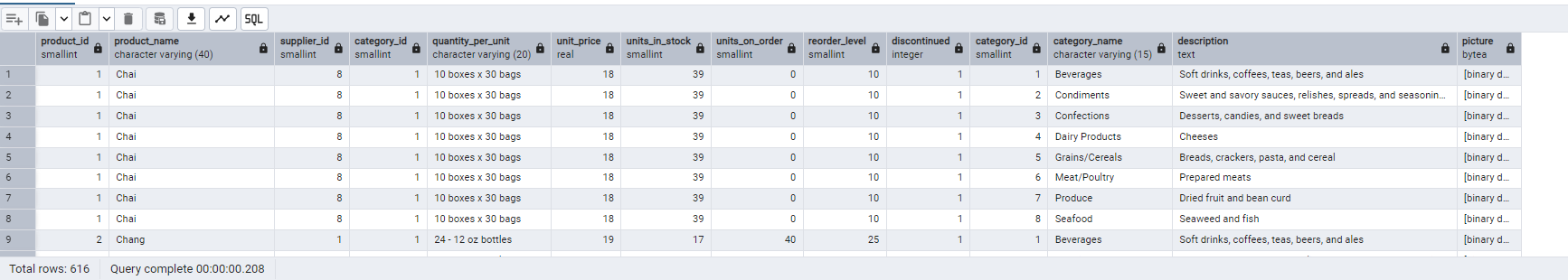
GROUP BY column\_name

HAVING COUNT(DISTINCT table\_name) > 1;

SELECT product\_id,product\_name,category\_name

FROM products

CROSS JOIN categories



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

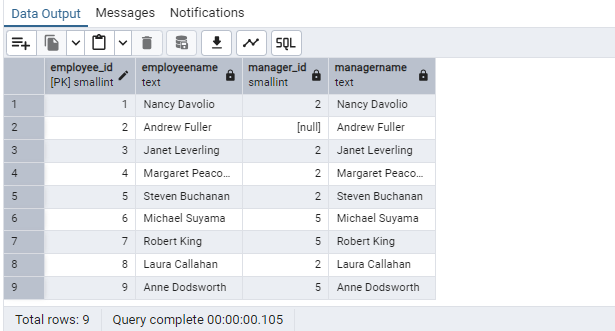
select \* from employees

SELECT e.first\_name||' ' ||e.last\_name AS employee,m.first\_name||' '||m.last\_name AS manager

FROM employees e

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

ORDER BY manager;



-- 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 o.ship\_via,c.contact\_name,c.company\_name

FROM customers c

LEFT JOIN orders o

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

WHERE o.ship\_via IS NULL

