Sahana 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,o.order\_id,p.product\_name,od.quantity,o.order\_date from customers c

inner join orders o on

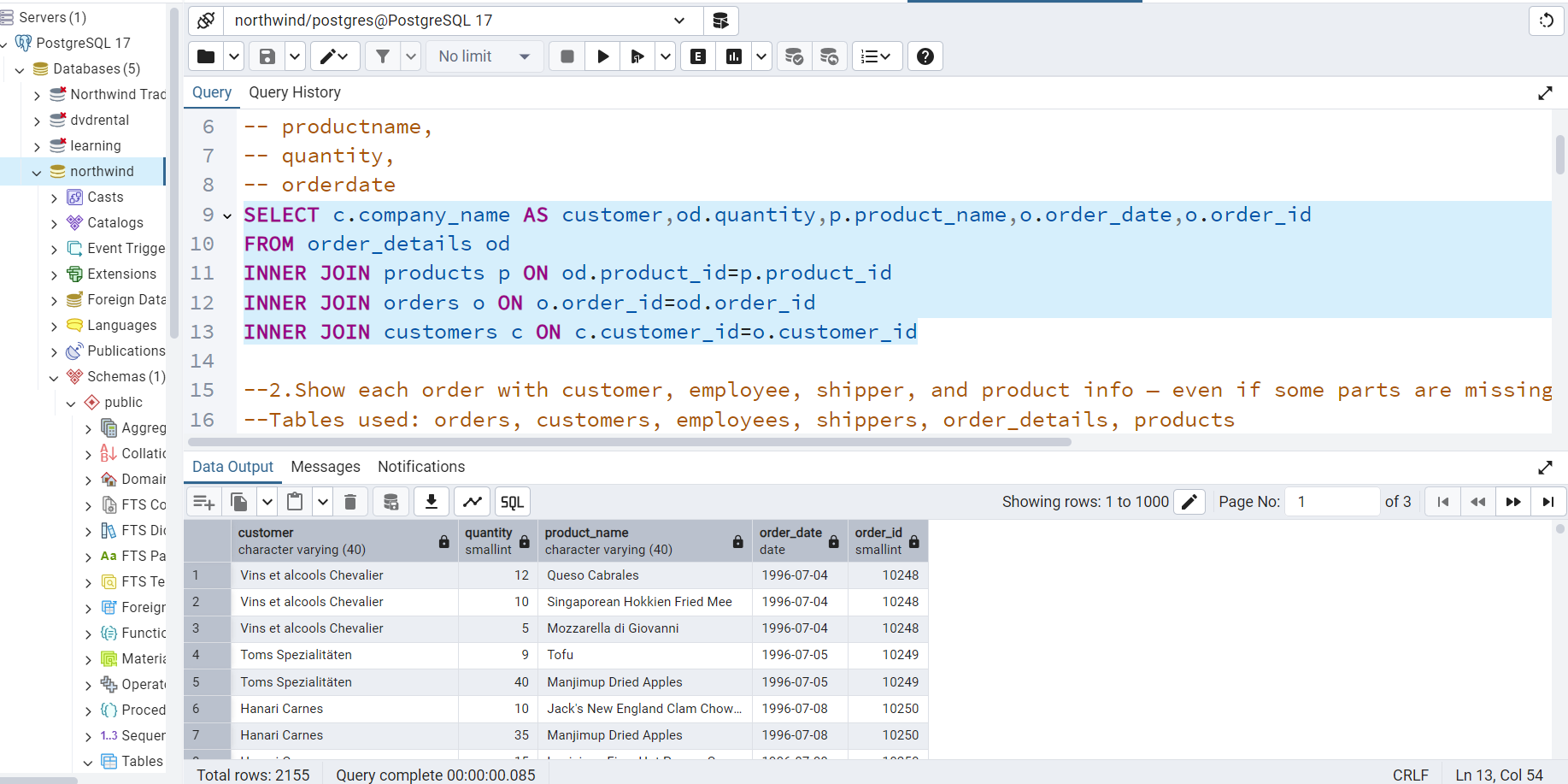
o.customer\_id = c.customer\_id

inner join order\_details od on

o.order\_id = od.order\_id

inner join products p on

p.product\_id = od.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 \* 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 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,

o.order\_date 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 shippers s on

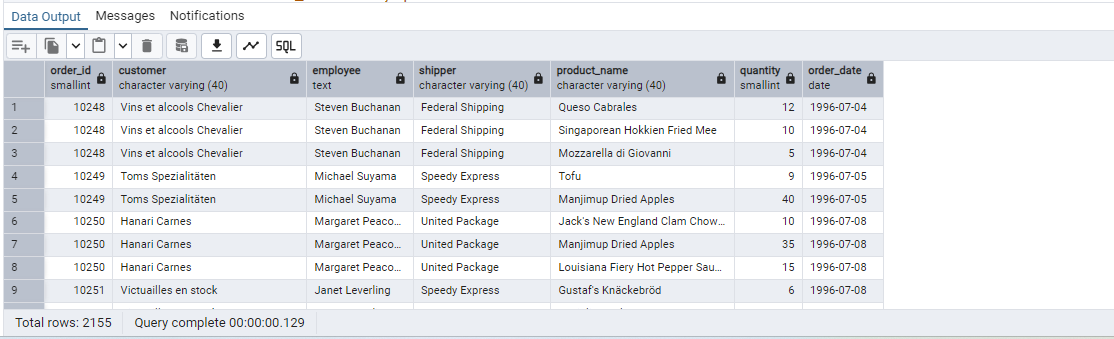
s.shipper\_id= o.ship\_via

left join order\_details od on

od.order\_id = o.order\_id

left join products p on

p.product\_id = od.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,

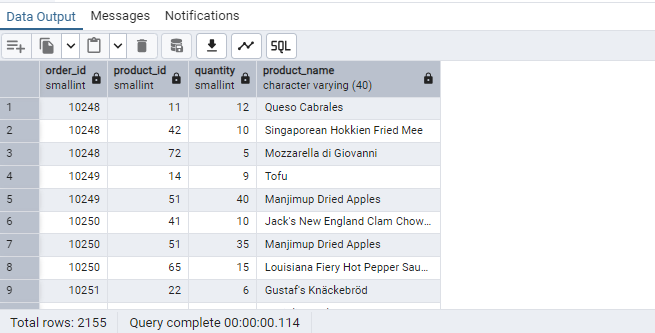
-- quantity,

-- productname

select order\_id,p.product\_id,quantity,product\_name from order\_details od

right join products p on

p.product\_id = od.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

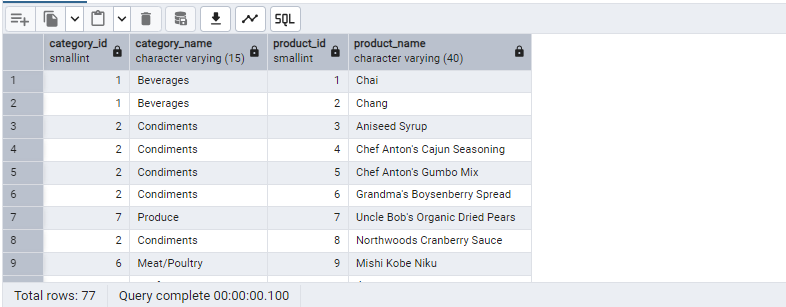
select \* from categories

select \* from products

select p.category\_id,category\_name, product\_id,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')

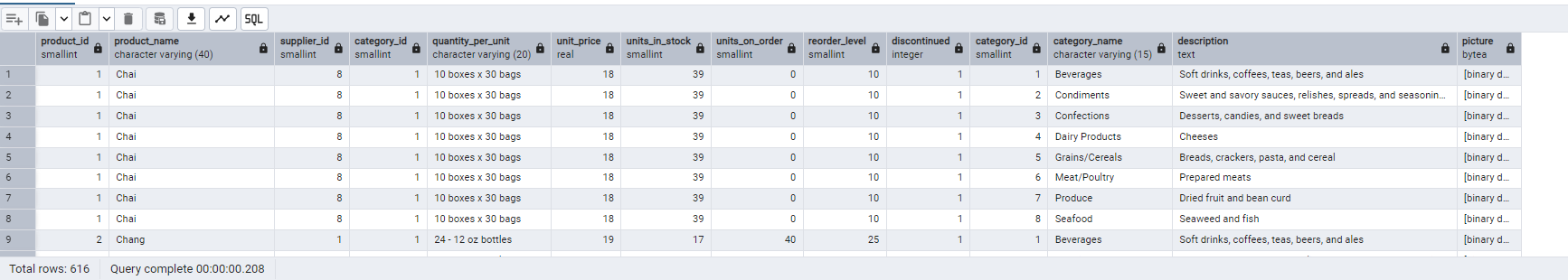
GROUP BY column\_name

HAVING COUNT(DISTINCT table\_name) > 1;

select \* from categories

select \* from products p

cross join categories ca



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

select \* from employees

SELECT

e.employee\_id AS employee\_id,

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

m.employee\_id AS manager\_id,

e.first\_name || ' ' || e.last\_name AS managername

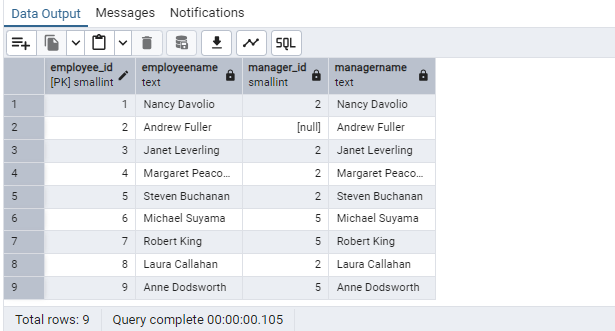
FROM employees e

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 \* from customers

select \* from orders

select c.customer\_id from customers c

left join orders o on

c.customer\_id = o.customer\_id

where ship\_via is null

