**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

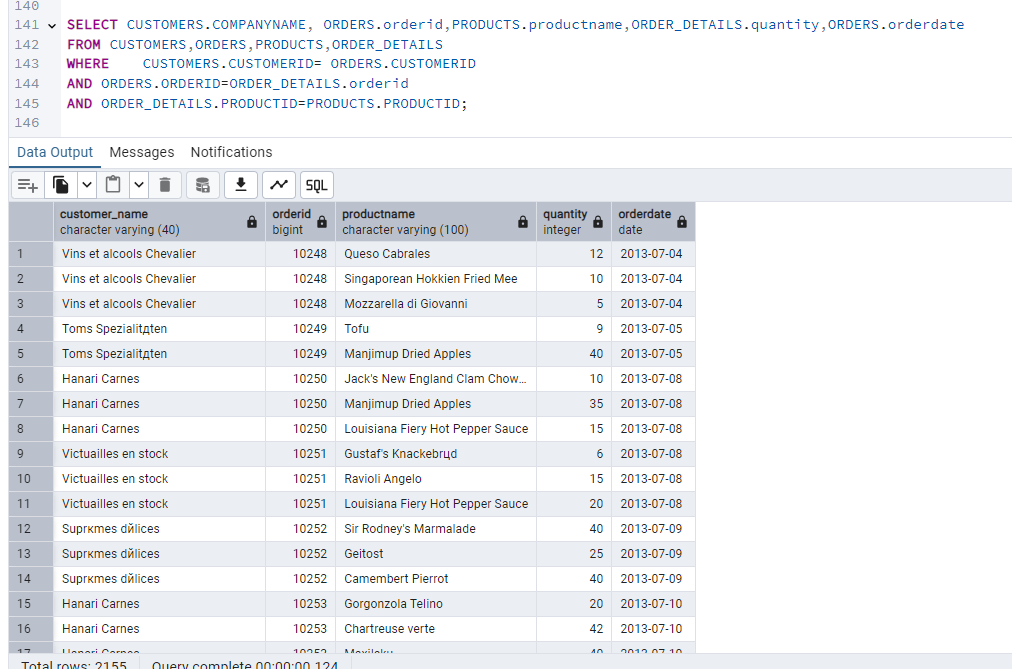
SELECT CUSTOMERS.COMPANYNAME AS CUSTOMER\_NAME, ORDERS.orderid,PRODUCTS.productname,ORDER\_DETAILS.quantity,ORDERS.orderdate

FROM CUSTOMERS,ORDERS,PRODUCTS,ORDER\_DETAILS

WHERE CUSTOMERS.CUSTOMERID= ORDERS.CUSTOMERID

AND ORDERS.ORDERID=ORDER\_DETAILS.orderid

AND ORDER\_DETAILS.PRODUCTID=PRODUCTS.PRODUCTID;



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

CUSTOMERS.COMPANY NAME AS CUSTOMER,

EMPLOYEES.EMPLOYEENAME,

SHIPPERS.COMPANY NAME AS SHIPPER,

ORDERS.ORDERID,

PRODUCTS.\*,

ORDER\_DETAILS.QUANTITY,

ORDERS.ORDERDATE

FROM ORDERS

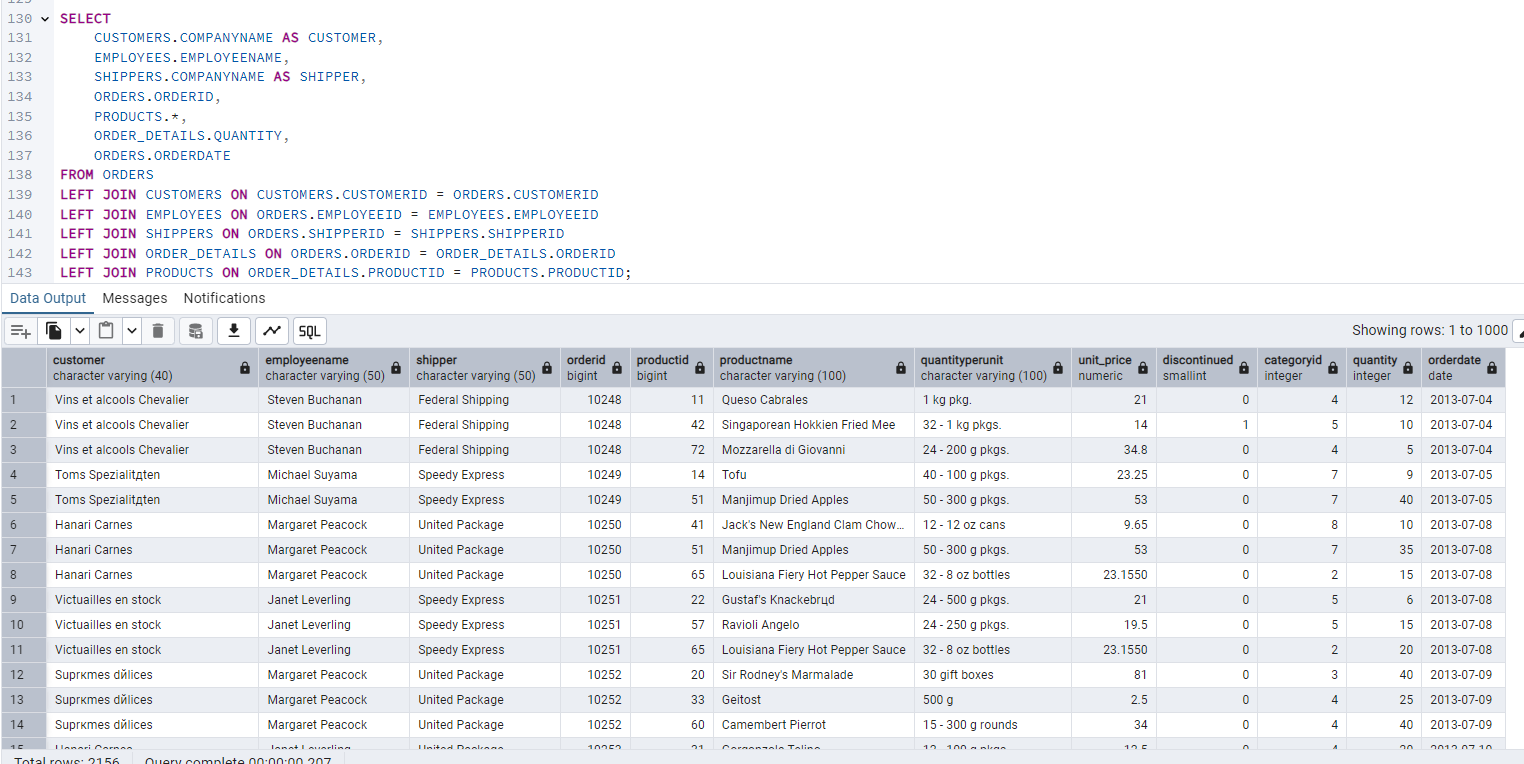
LEFT JOIN CUSTOMERS ON CUSTOMERS.CUSTOMERID = ORDERS.CUSTOMERID

LEFT JOIN EMPLOYEES ON ORDERS.EMPLOYEEID = EMPLOYEES.EMPLOYEEID

LEFT JOIN SHIPPERS ON ORDERS.SHIPPERID = SHIPPERS.SHIPPER ID

LEFT JOIN ORDER\_DETAILS ON ORDERS.ORDERID = ORDER\_DETAILS.ORDERID

LEFT JOIN PRODUCTS ON ORDER\_DETAILS.PRODUCTID = PRODUCTS.PRODUCTID;



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

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

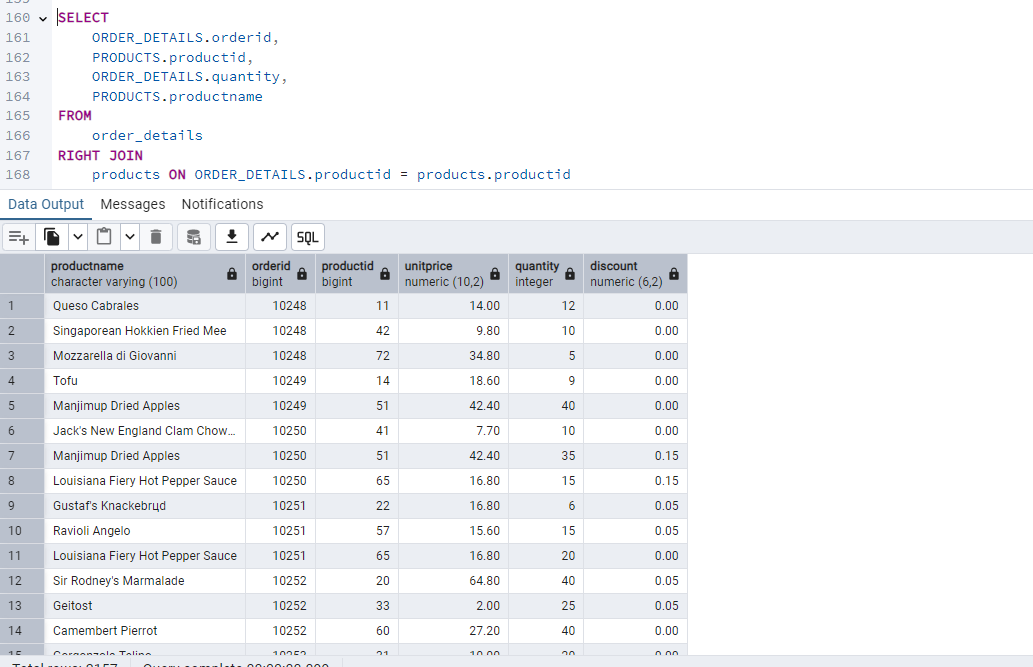
**Output should have below columns:** orderid, productid, quantity, productname

SELECT ORDER\_DETAILS.orderid,PRODUCTS.productid,ORDER\_DETAILS.quantity,PRODUCTS.productname

FROM order\_details

RIGHT JOIN

products ON ORDER\_DETAILS.productid = products.productid



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**

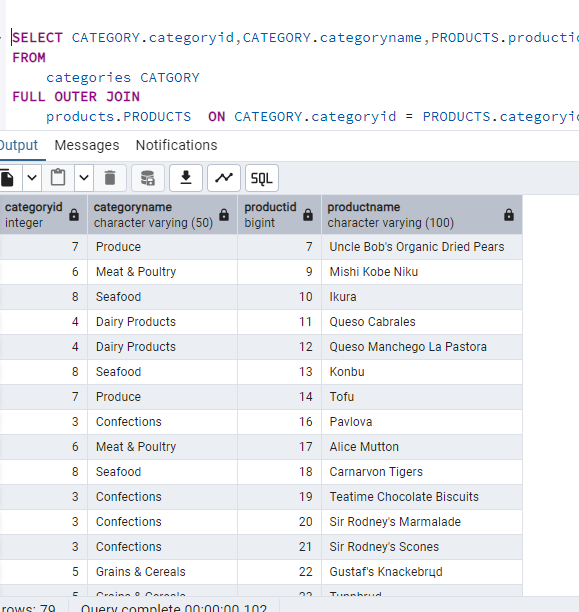
SELECT CATEGORY.categoryid,CATEGORY.categoryname,PRODUCTS.productid,PRODUCTS.productname

FROM

categories CATGORY

FULL OUTER JOIN

products.PRODUCTS ON CATEGORY.categoryid = PRODUCTS.categoryid;

****

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

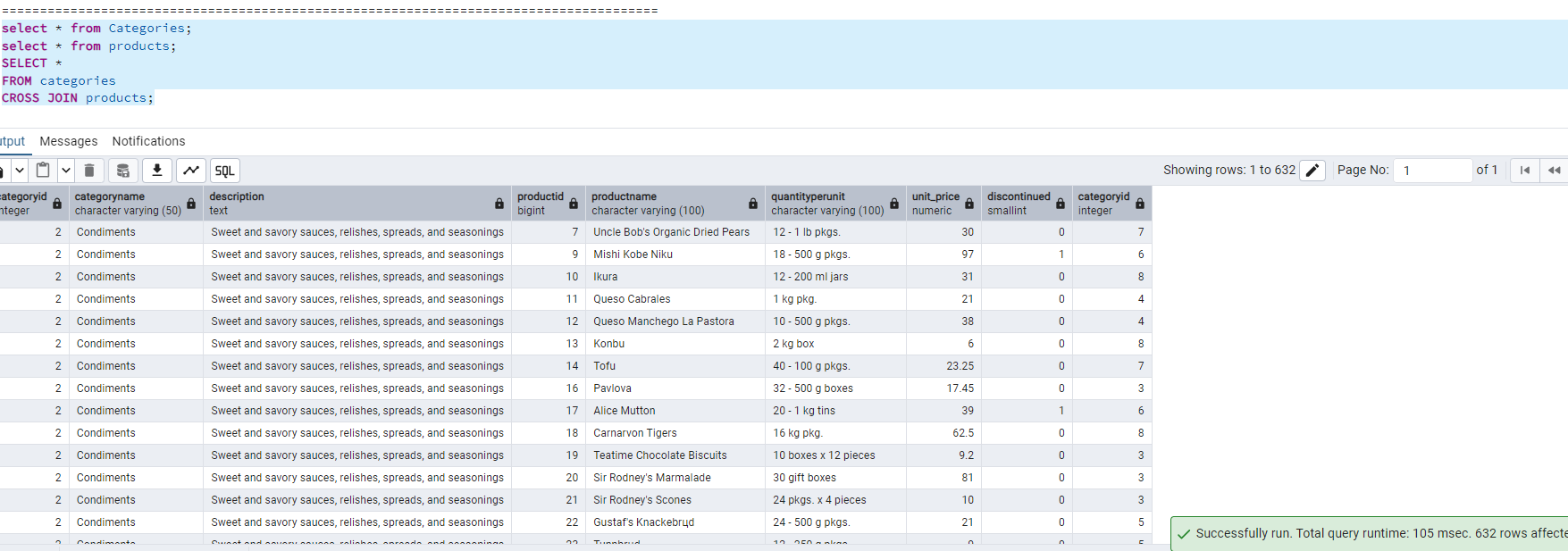
select \* from Categories;

select \* from products;

SELECT \*

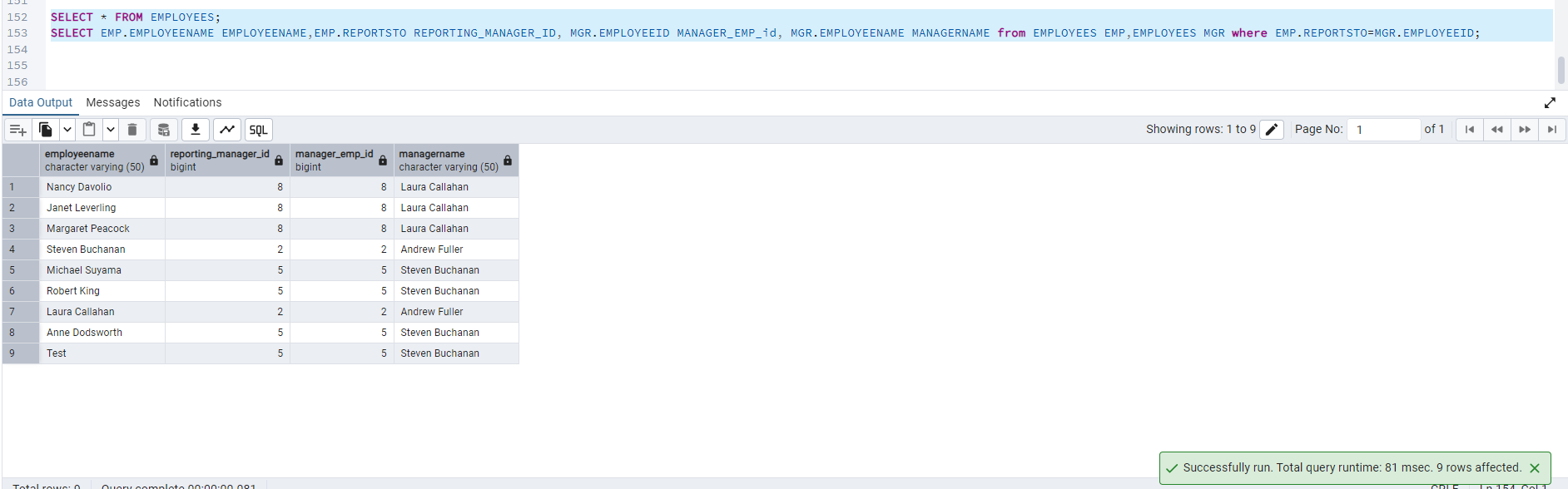
FROM categories

CROSS JOIN products;



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

SELECT EMP.EMPLOYEENAME EMPLOYEENAME,EMP.REPORTSTO REPORTING\_MANAGER\_ID, MGR.EMPLOYEEID MANAGER\_EMP\_id, MGR.EMPLOYEENAME MANAGERNAME from EMPLOYEES EMP,EMPLOYEES MGR where EMP.REPORTSTO=MGR.EMPLOYEEID;



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

**Tables used:** customers, orders

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

SELECT CUSTOMERS.customerid,CUSTOMERS.companyname

FROM CUSTOMERS

LEFT JOIN

orders orders ON CUSTOMERS.customerid = orders.customerid

WHERE

orders.shipvia IS NULL;

