Day2

- 1) Alter Table:
 - Add a new column linkedin_profile to employees table to store LinkedIn URLs as varchar.

ALTER TABLE employees ADD COLUMN linkedin_profile varchar(100);



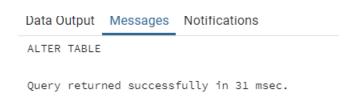
• Change the linkedin_profile column data type from VARCHAR to TEXT.

ALTER TABLE employees ALTER COLUMN linkedin_profile SET DATA TYPE TEXT;

ALTER TABL	_E		
Query retu	urned successfu	lly in 34 mse	ec.

Add unique, not null constraint to linkedin profile

ALTER TABLE EMPLOYEES ALTER COLUMN linkedin_profile SET NOT NULL;



ALTER TABLE EMPLOYEES
ADD CONSTRAINT linkedin_unique UNIQUE (linkedin_profile);



Drop column linkedin_profile

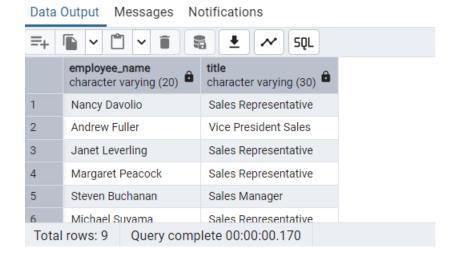
ALTER TABLE EMPLOYEES DROP COLUMN linkedin_profile;



2) Querying (Select)

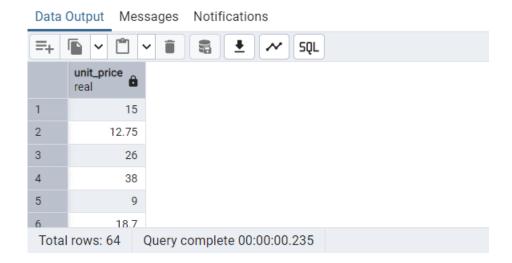
Retrieve the employee name and title of all employees

SELECT employee_name, title from employees;



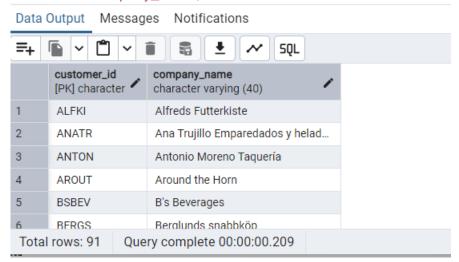
• Find all unique unit prices of products

SELECT DISTINCT unit_price from products;



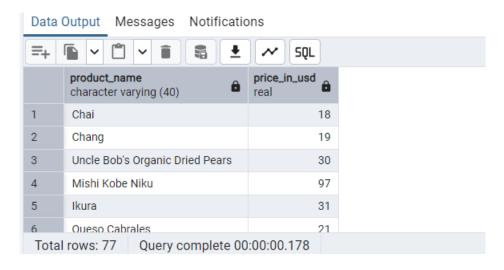
List all customers sorted by company name in ascending order

SELECT customer_id,company_name FROM customers ORDER BY company_name;



• Display product name and unit price, but rename the unit_price column as price_in_usd

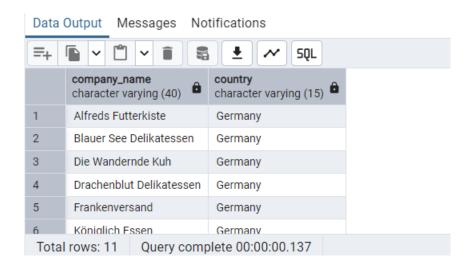
SELECT product_name, unit_price as price_in_usd FROM products;



3) Filtering

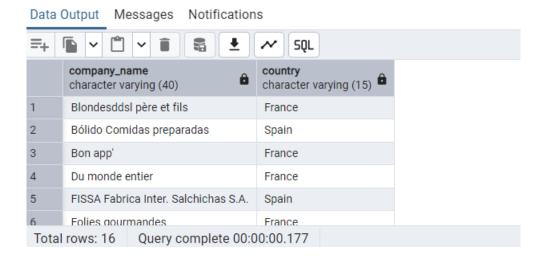
• Get all customers from Germany.

SELECT company_name, country FROM customers WHERE country = 'Germany' ORDER BY company_name;



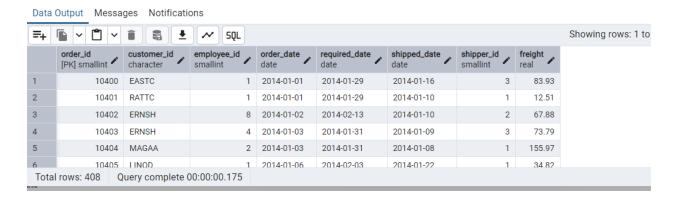
Find all customers from France or Spain

SELECT company_name, country FROM customers WHERE country = 'France' or country = 'Spain' ORDER BY company_name;



 Retrieve all orders placed in 2014(based on order_date), and either have freight greater than 50 or the shipped date available (i.e., non-NULL) (Hint: EXTRACT(YEAR FROM order_date))

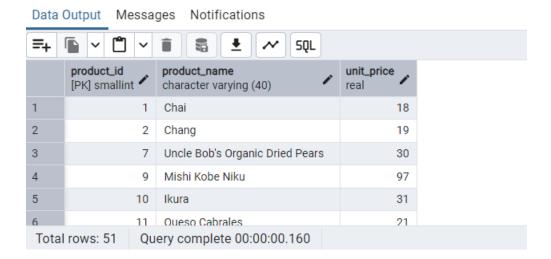
SELECT * FROM orders where EXTRACT(YEAR FROM order_date) = 2014 AND (freight > 50 or shipped_date IS NOT NULL);



4) Filtering

 Retrieve the product_id, product_name, and unit_price of products where the unit_price is greater than 15.

SELECT product_id,product_name,unit_price FROM products WHERE unit_price > 15;



List all employees who are located in the USA and have the title "Sales Representative".

SELECT employee_name, country, title from employees WHERE country = 'USA' and title = 'Sales Representative';



Retrieve all products that are not discontinued and priced greater than 30.

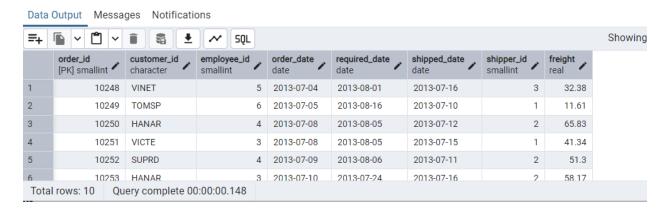
SELECT * FROM products where discontinued = 0 and unit_price > 30 order by product_id;



5) LIMIT/FETCH

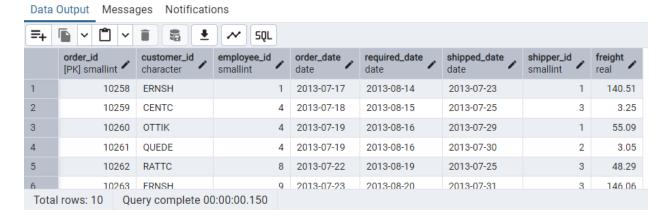
• Retrieve the first 10 orders from the orders table.

SELECT * FROM ORDERS ORDER BY order_id LIMIT 10;



• Retrieve orders starting from the 11th order, fetching 10 rows (i.e., fetch rows 11-20).

SELECT * FROM ORDERS ORDER BY order_id OFFSET 10 LIMIT 10;



- 6) Filtering (IN, BETWEEN)
 - List all customers who are either Sales Representative, Owner

SELECT * FROM customers WHERE contact_title in ('Sales Representative', 'Owner');



Retrieve orders placed between January 1, 2013, and December 31, 2013.

SELECT * FROM orders WHERE order date BETWEEN '2013-01-01' AND '2013-12-31';



7) Filtering

List all products whose category_id is not 1, 2, or 3.

SELECT * FROM products where category_id not in (1,2,3);



Find customers whose company name starts with "A".

SELECT * FROM customers WHERE company_name like 'A%';



8) INSERT into orders table:

Task: Add a new order to the orders table with the following details:

Order ID: 11078 Customer ID: ALFKI Employee ID: 5

Order Date: 2025-04-23 Required Date: 2025-04-30 Shipped Date: 2025-04-25

shipperID:2 Freight: 45.50

INSERT INTO orders VALUES (11078, 'ALFKI', 5, '2025-04-23', '2025-04-30','2025-04-25',2,45.50);

SELECT * FROM ORDERS WHERE ORDER_ID = 11078;



9) Increase(Update) the unit price of all products in category_id =2 by 10%. (HINT: unit_price = unit_price * 1.10)

UPDATE products SET unit price = unit price * 1.10 WHERE category id = 2;

SELECT * FROM products where category_id = 2;

Data	Data Output Messages Notifications								
➡ ⓑ ∨ 🗂 ▽ ਡ ॾ ∠ SQL							Showing		
	product_id [PK] smallint	product_name character varying (40)	quantity_per_unit character varying (20)	unit_price real	discontinued integer	category_id smallint			
1	3	Aniseed Syrup	12 - 550 ml bottles	11	0	2			
2	4	Chef Anton's Cajun Seasoning	48 - 6 oz jars	24.2	0	2			
3	5	Chef Anton's Gumbo Mix	36 boxes	23.485	1	2			
4	6	Grandma's Boysenberry Spread	12 - 8 oz jars	27.5	0	2			
5	8	Northwoods Cranberry Sauce	12 - 12 oz jars	44	0	2			
6	15	Genen Shouvu	24 - 250 ml bottles	17.05	0	2			
Total	Total rows: 12 Query complete 00:00:00.134								

10) Sample Northwind database:

Download

- I. Download northwind.sql from below link into your local. Sign in to Git first https://github.com/pthom/northwind_psql
- II. Manually Create the database using pgAdmin:
 - A. Right-click on "Databases" \rightarrow Create \rightarrow Database
 - B. Give name as 'northwind' (all small letters)
 - C. Click 'Save'

Import database:

- I. Open pgAdmin and connect to your server
- II. Select the database 'northwind'
- III. Right Click-> Query tool.
- IV. Click the folder icon to open your northwind.sql file
- V. Press F5 or click the Execute button.
- VI. You will see total 14 tables loaded
- VII. Databases \rightarrow your database \rightarrow Schemas \rightarrow public \rightarrow Tables

