#### 1) Alter Table:

Add a new column linkedin profile to employees table to store LinkedIn URLs as

```
Alter table employees
       add column linkedin_profile varchar(60);
  4 Alter table employees
      Alter column linkedin profile type TEXT;
  6 Alter table employees
       Alter column linkedin_profile set not null,
              atraint unique libeledie profile unique/libeledi
  Data Output Messages Notifications
  ALTER TABLE
  Query returned successfully in 144 msec.
Change the linkedin_profile column data type from VARCHAR to TEXT.
    4 Alter table employees
```

```
Alter column linkedin_profile type TEXT;
6 ∨ Alter table employees
     Alter column linkedin profile set not null,
             traint unique linkadin profile uniqu
                      Notifications
Data Output
           Messages
ALTER TABLE
Query returned successfully in 115 msec.
```

Add unique, not null constraint to linkedin profile

```
8 Alter table employees
    Alter column linkedin_profile set not null,
    ADD CONSTRAINT unique_linkedin_profile unique(linkedin_profile);
```

Drop column linkedin profile

# 95 **ALTER TABLE** employees 96 **DROP COLUMN** linkedin\_profile; 97

Data Output Messages Notifications

ALTER TABLE

Query returned successfully in 119 msec.

- 2) Querying (Select)
  - Retrieve the first name, last name, and title of all employees

```
39 -- Querying (Select)
40 Select employeename, title
      from employees;
41
42
43 ∨ select * from products
      select distinct unitprice
      from products.
                          Notifications
Data Output
              Messages
                                            SQL
=+
       employeename
                             title
      character varying (60)
                             character varying (100)
       Nancy Davolio
                              Sales Representative
       Andrew Fuller
                              Vice President Sales
2
3
       Janet Leverling
                              Sales Representative
       Margaret Peacock
                              Sales Representative
4
5
       Steven Buchanan
                              Sales Manager
6
       Michael Suyama
                              Sales Representative
7
       Robert King
                              Sales Representative
       Laura Callahan
8
                              Sales Manager
       Anne Dodsworth
                              Sales Representative
                 Query complete 00:00:00.138
Total rows: 9
```

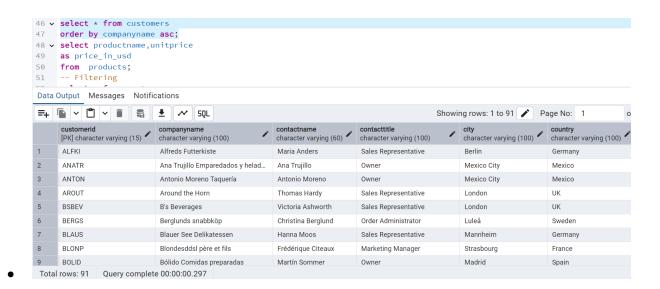
Find all unique unit prices of products

46 <b>v</b> 47 48 <b>v</b>	<pre>select distinct unitprice from products; select * from customers order by companyname asc; select productname, unitprice Output Messages Notifications</pre>
=+	<b>□</b> ∨ <b>□</b> ∨ <b>□ □ □ □ □ □ □ □ □ □</b>
	unitprice numeric (10,2)
1	62.50
2	55.00
3	19.00
4	45.60
5	14.00
6	17.00
7	7.00
8	9.20
9	34.00
Total rows: 62 Query complete 00:00:00.137	

• List all customers sorted by company name in ascending order

•

•



Display product name and unit price, but rename the unit\_price column as price\_in\_usd 48 v select productname, unitprice as price\_in\_usd 49 from products; 50 -- Filtering 51 52 **v select** \* **from** customers where country ='Germany'; 53 Data Output Messages Notifications SQL =+ productname price\_in\_usd character varying (100) numeric (10,2) Chai 18.00 2 Chang 19.00 3 Aniseed Syrup 10.00 Chef Anton's Cajun Seasoning 22.00 4 5 Chef Anton's Gumbo Mix 21.35 Grandma's Boysenberry Spread 25.00 6 Uncle Bob's Organic Dried Pears

Query complete 00:00:00.222

30.00

40.00

97.00

#### 3) Filtering

7

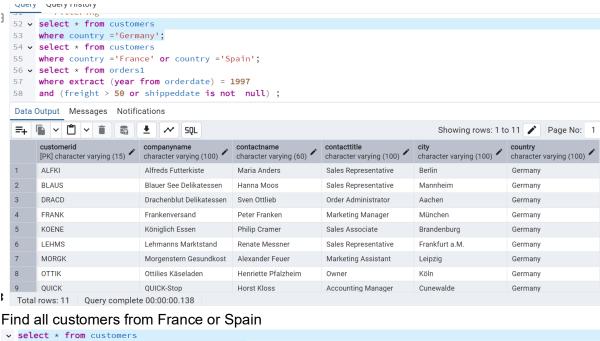
8

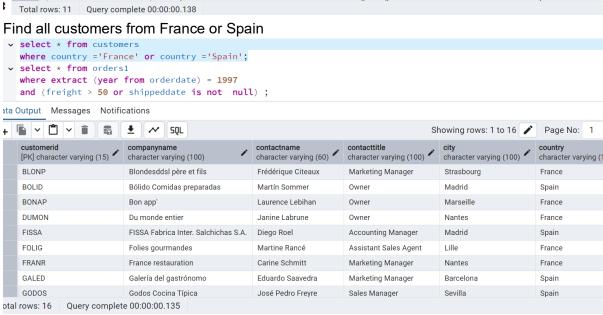
Get all customers from Germany.

Total rows: 77

Northwoods Cranberry Sauce

Mishi Kobe Niku





Retrieve all orders placed in 1997 (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))

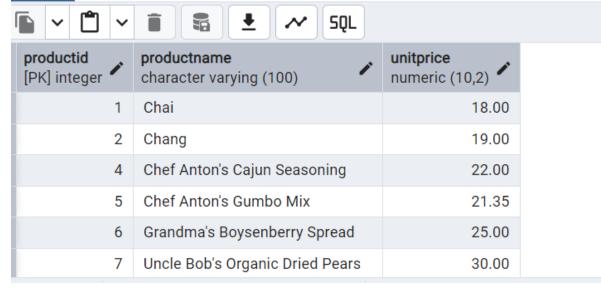
```
56 v select * from orders1
     where extract (year from orderdate) = 1997
58
     and (freight > 50 or shippeddate is not null);
60 v select productid , productname ,unitprice from products
     where unitprice > 15;
Data Output Messages Notifications
    5
                          #
                                                                                shipperid
                                  employeeid ,
                                                                    shippeddate
                                             orderdate
                customerid
                                                                                          freight
                                                       requireddate
                character varying (5)
                                                                                         numeric (10,2)
```

# 4) Filtering

 Retrieve the product\_id, product\_name, and unit\_price of products where the unit\_price is greater than 15.

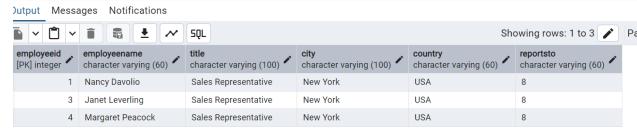
select productid , productname ,unitprice from products
where unitprice > 15;

Output Messages Notifications



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

select \* from employees
where country = 'USA' and title = 'Sales Representative';



•

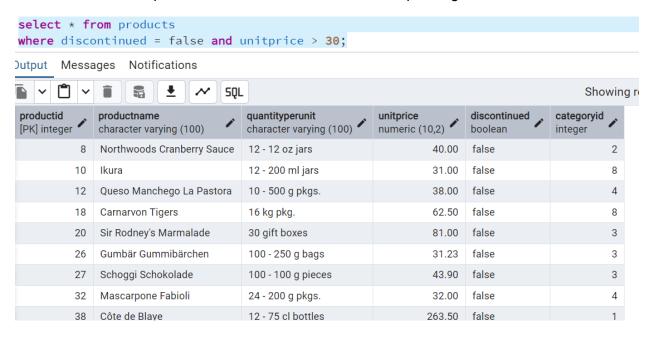
•

•

•

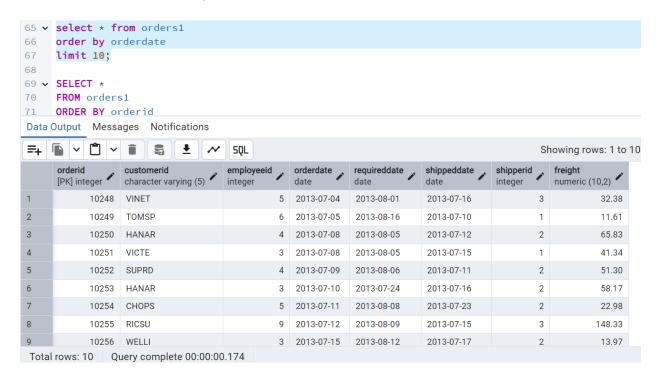
•

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

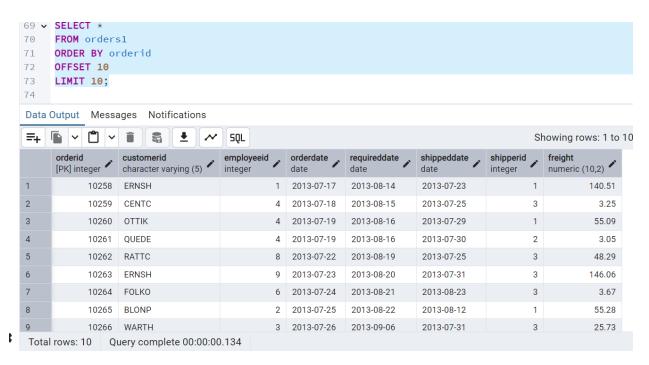


### LIMIT/FETCH

1. Retrieve the first 10 orders from the orders table.

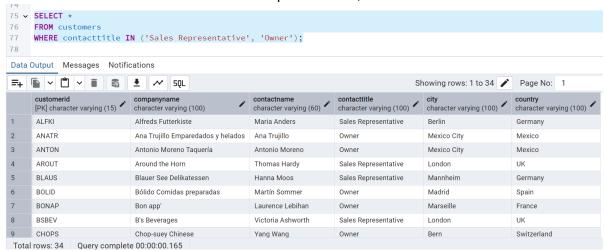


2. Retrieve orders starting from the 11th order, fetching 10 rows (i.e., fetch rows 11-20).

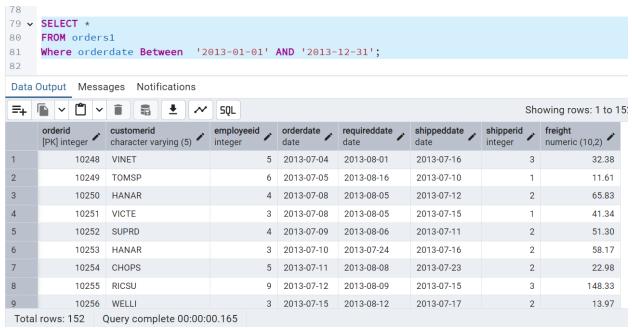


# 6) Filtering (IN, BETWEEN)

· List all customers who are either Sales Representative, Owner

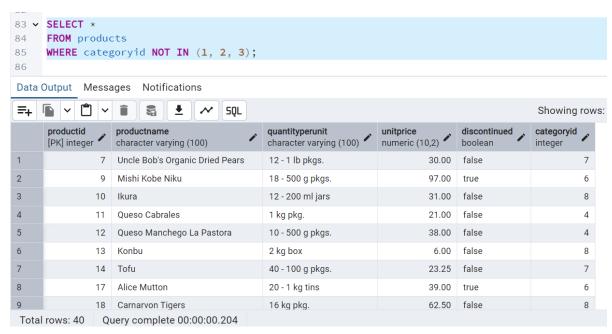


Retrieve orders placed between January 1, 2013, and December 31, 2013.

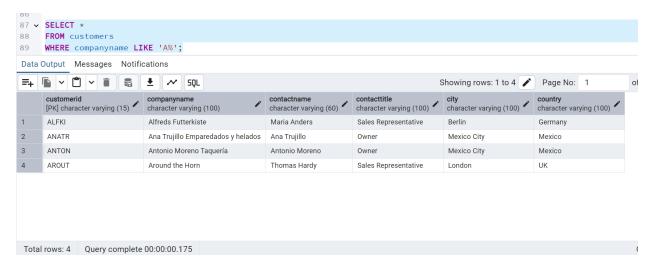


## 7) Filtering

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



• Find customers whose company name starts with "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



9) Increase(Update) the unit price of all products in category\_id =2 by 10%. (HINT: unit\_price = unit\_price \* 1.10)

```
106 V UPDATE products

107 SET unitprice = unitprice * 1.10

108 WHERE categoryid = 2;
```

Data Output Messages Notifications

UPDATE 12

Query returned successfully in 84 msec.

# 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

# Completed