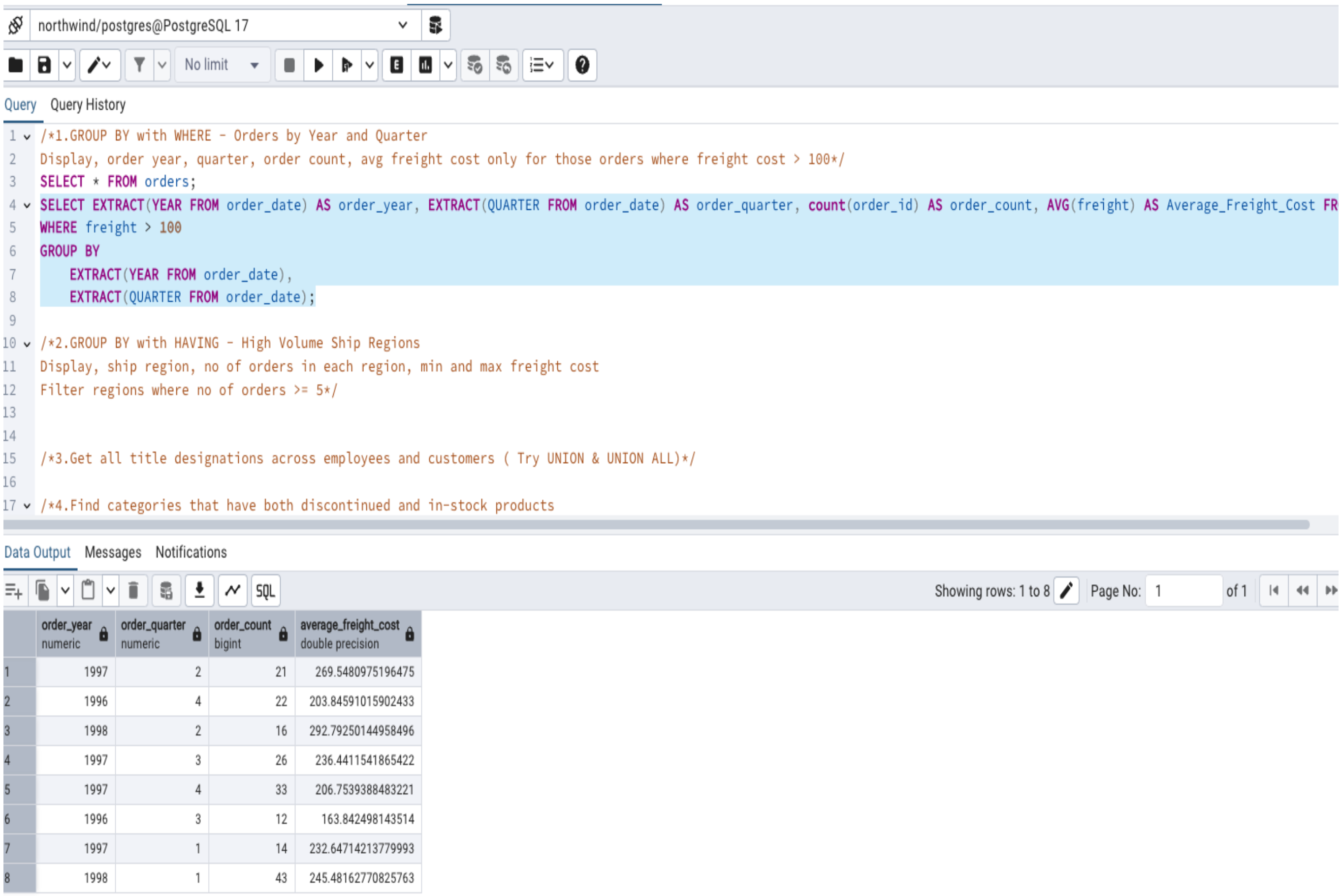
1. GROUP BY with WHERE - Orders by Year and Quarter

   Display, order year, quarter, order count, avg freight cost only for those orders where freight cost > 100

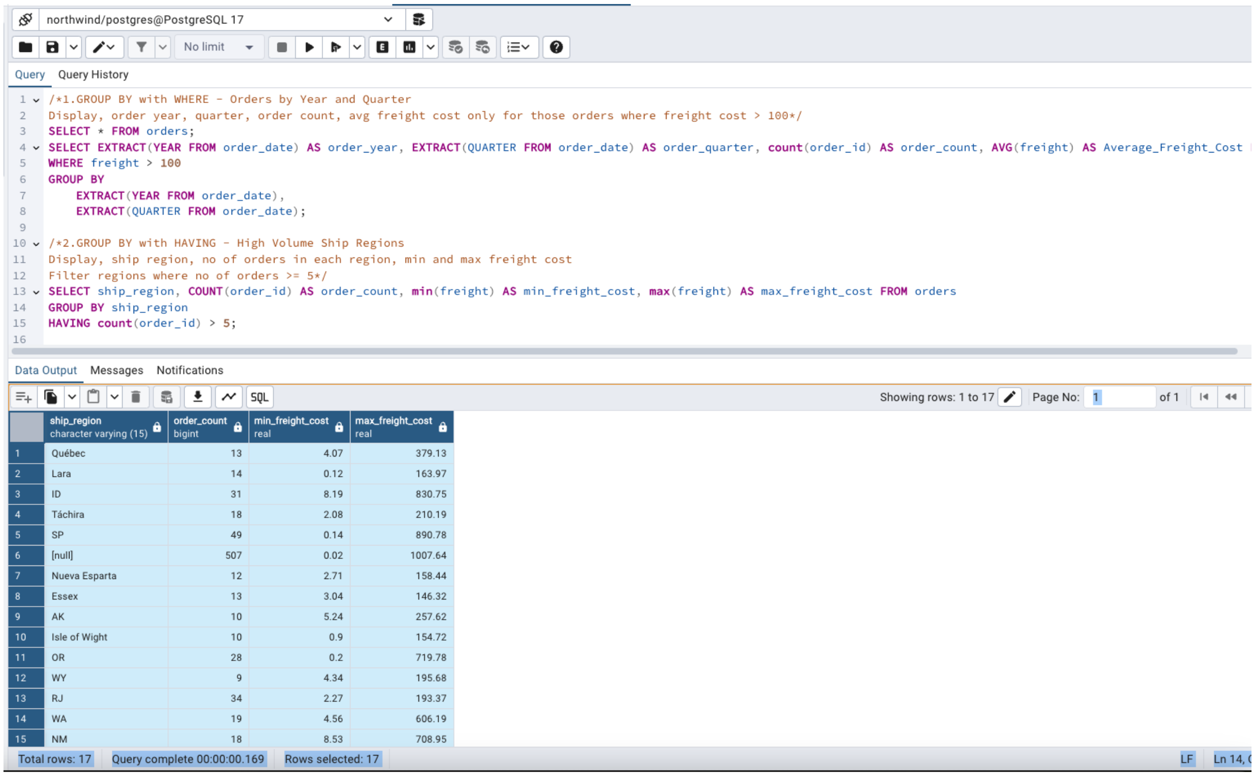


```
/*1.GROUP BY with WHERE - Orders by Year and Quarter
Display, order year, quarter, order count, avg freight cost only for those orders where freight cost > 100*/
SELECT * FROM orders;
SELECT EXTRACT(YEAR FROM order_date) AS order_year, EXTRACT(QUARTER FROM order_date) AS order_quarter, count(order_id) AS order_count, AVG(freight) AS Average_Freight_Cost FR
WHERE freight > 100
GROUP BY
    EXTRACT(YEAR FROM order_date),
    EXTRACT(QUARTER FROM order_date);

/*2.GROUP BY with HAVING - High Volume Ship Regions
Display, ship region, no of orders in each region, min and max freight cost
Filter regions where no of orders >= 5*/


/*3.Get all title designations across employees and customers ( Try UNION & UNION ALL)*/

/*4.Find categories that have both discontinued and in-stock products
```

	order_year numeric	order_quarter numeric	order_count bigint	average_freight_cost double precision
1	1997	2	21	269.5480975196475
2	1996	4	22	203.84591015902433
3	1998	2	16	292.79250144958496
4	1997	3	26	236.4411541865422
5	1997	4	33	206.7539388483221
6	1996	3	12	163.842498143514
7	1997	1	14	232.64714213779993
8	1998	1	43	245.48162770825763

2. GROUP BY with HAVING - High Volume Ship Regions

   Display, ship region, no of orders in each region, min and max freight cost
   Filter regions where no of orders >= 5



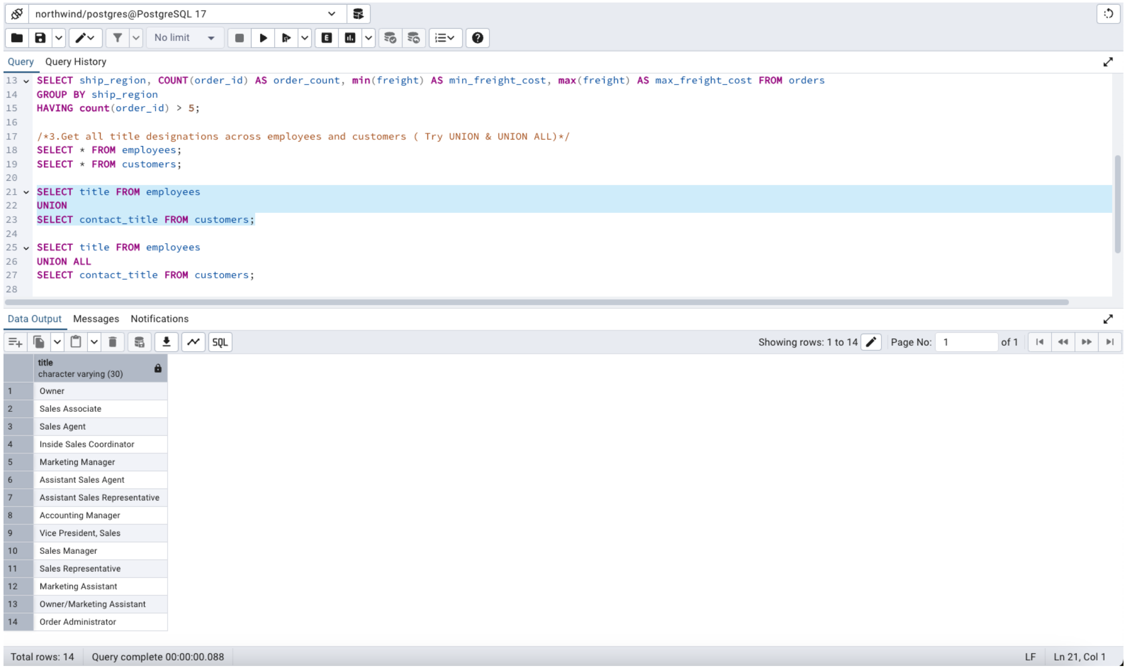
```sql
/*1.GROUP BY with WHERE - Orders by Year and Quarter
Display, order year, quarter, order count, avg freight cost only for those orders where freight cost > 100*/
SELECT * FROM orders;
SELECT EXTRACT(YEAR FROM order_date) AS order_year, EXTRACT(QUARTER FROM order_date) AS order_quarter, count(order_id) AS order_count, AVG(freight) AS Average_Freight_Cost
WHERE freight > 100
GROUP BY
    EXTRACT(YEAR FROM order_date),
    EXTRACT(QUARTER FROM order_date);

/*2.GROUP BY with HAVING - High Volume Ship Regions
Display, ship region, no of orders in each region, min and max freight cost
Filter regions where no of orders >= 5*/
SELECT ship_region, COUNT(order_id) AS order_count, min(freight) AS min_freight_cost, max(freight) AS max_freight_cost FROM orders
GROUP BY ship_region
HAVING count(order_id) > 5;
```

	ship_region character varying (15)	order_count bigint	min_freight_cost real	max_freight_cost real
1	Québec	13	4.07	379.13
2	Lara	14	0.12	163.97
3	ID	31	8.19	830.75
4	Táchira	18	2.08	210.19
5	SP	49	0.14	890.78
6	[null]	507	0.02	1007.64
7	Nueva Esparta	12	2.71	158.44
8	Essex	13	3.04	146.32
9	AK	10	5.24	257.62
10	Isle of Wight	10	0.9	154.72
11	OR	28	0.2	719.78
12	WY	9	4.34	195.68
13	RJ	34	2.27	193.37
14	WA	19	4.56	606.19
15	NM	18	8.53	708.95

Total rows: 17 Query complete 00:00:00.169 Rows selected: 17 LF Ln 14,

3. Get all title designations across employees and customers (Try UNION & UNION ALL)

UNION:



northwind/postgres@PostgreSQL 17

No limit

Query | Query History

```sql
SELECT ship_region, COUNT(order_id) AS order_count, min(freight) AS min_freight_cost, max(freight) AS max_freight_cost FROM orders
GROUP BY ship_region
HAVING count(order_id) > 5;

/*3.Get all title designations across employees and customers ( Try UNION & UNION ALL)*/
SELECT * FROM employees;
SELECT * FROM customers;

SELECT title FROM employees
UNION
SELECT contact_title FROM customers;

SELECT title FROM employees
UNION ALL
SELECT contact_title FROM customers;

```

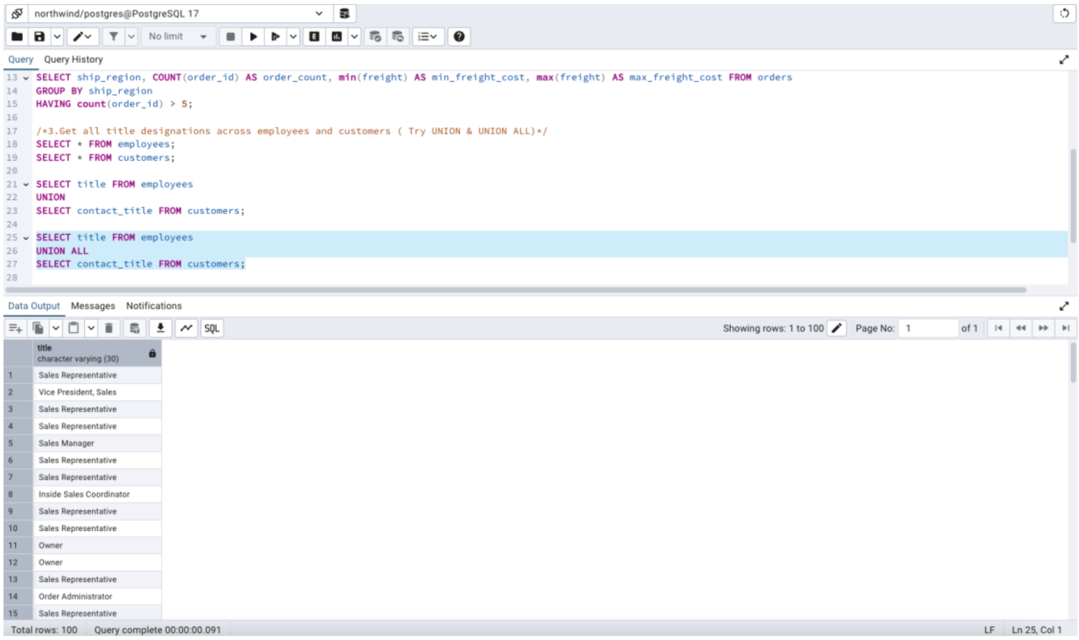
Data Output | Messages | Notifications

Showing rows: 1 to 14 | Page No: 1 of 1

	title character varying (30)
1	Owner
2	Sales Associate
3	Sales Agent
4	Inside Sales Coordinator
5	Marketing Manager
6	Assistant Sales Agent
7	Assistant Sales Representative
8	Accounting Manager
9	Vice President, Sales
10	Sales Manager
11	Sales Representative
12	Marketing Assistant
13	Owner/Marketing Assistant
14	Order Administrator

Total rows: 14 Query complete 00:00:00.088 LF Ln 21, Col 1

UNION ALL:



northwind/postgres@PostgreSQL 17

No limit

Query | Query History

```sql
SELECT ship_region, COUNT(order_id) AS order_count, min(freight) AS min_freight_cost, max(freight) AS max_freight_cost FROM orders
GROUP BY ship_region
HAVING count(order_id) > 5;

/*3.Get all title designations across employees and customers ( Try UNION & UNION ALL)*/
SELECT * FROM employees;
SELECT * FROM customers;

SELECT title FROM employees
UNION
SELECT contact_title FROM customers;

SELECT title FROM employees
UNION ALL
SELECT contact_title FROM customers;

```

Data Output | Messages | Notifications

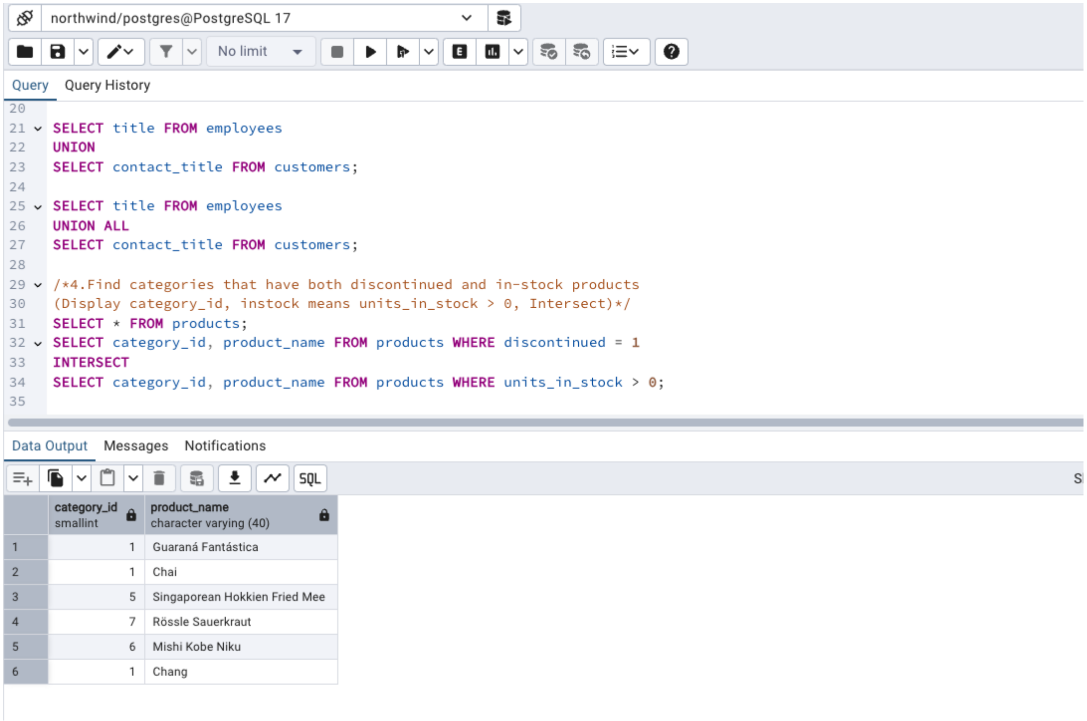
Showing rows: 1 to 100 | Page No: 1 of 1

	title character varying (30)
1	Sales Representative
2	Vice President, Sales
3	Sales Representative
4	Sales Representative
5	Sales Manager
6	Sales Representative
7	Sales Representative
8	Inside Sales Coordinator
9	Sales Representative
10	Sales Representative
11	Owner
12	Owner
13	Sales Representative
14	Order Administrator
15	Sales Representative

Total rows: 100 Query complete 00:00:00.091 LF Ln 25, Col 1

4. Find categories that have both discontinued and in-stock products

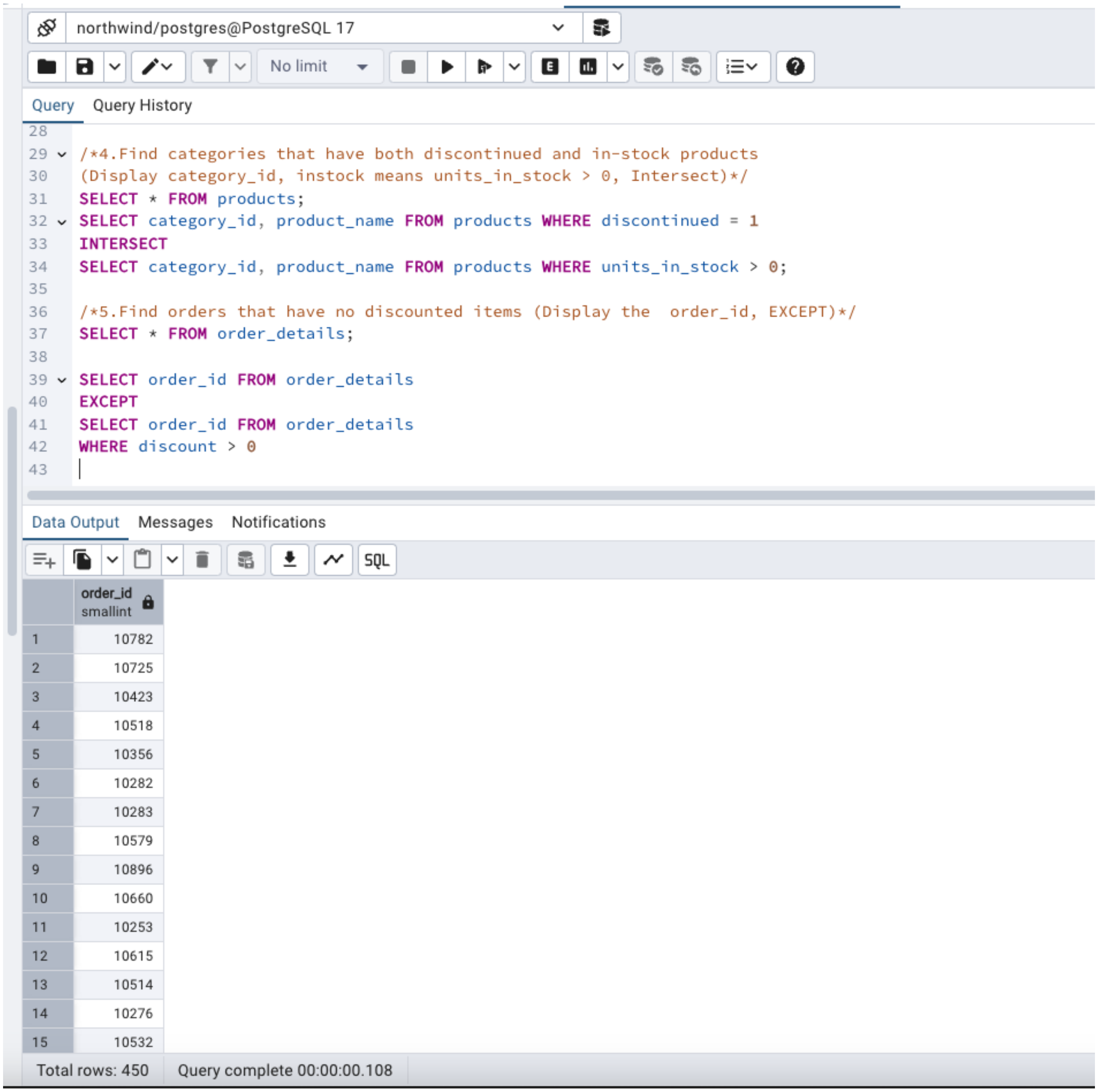
   (Display category_id, instock means units_in_stock > 0, Intersect)



```
SELECT title FROM employees
UNION
SELECT contact_title FROM customers;

SELECT title FROM employees
UNION ALL
SELECT contact_title FROM customers;

/*4.Find categories that have both discontinued and in-stock products
(Display category_id, instock means units_in_stock > 0, Intersect)*/
SELECT * FROM products;
SELECT category_id, product_name FROM products WHERE discontinued = 1
INTERSECT
SELECT category_id, product_name FROM products WHERE units_in_stock > 0;
```

	category_id smallint	product_name character varying (40)
1	1	Guaraná Fantástica
2	1	Chai
3	5	Singaporean Hokkien Fried Mee
4	7	Rössle Sauerkraut
5	6	Mishi Kobe Niku
6	1	Chang

5. Find orders that have no discounted items (Display the order_id, EXCEPT)



```sql

/*4.Find categories that have both discontinued and in-stock products
(Display category_id, instock means units_in_stock > 0, Intersect)*/
SELECT * FROM products;
SELECT category_id, product_name FROM products WHERE discontinued = 1
INTERSECT
SELECT category_id, product_name FROM products WHERE units_in_stock > 0;

/*5.Find orders that have no discounted items (Display the  order_id, EXCEPT)*/
SELECT * FROM order_details;

SELECT order_id FROM order_details
EXCEPT
SELECT order_id FROM order_details
WHERE discount > 0

```

	order_id smallint
1	10782
2	10725
3	10423
4	10518
5	10356
6	10282
7	10283
8	10579
9	10896
10	10660
11	10253
12	10615
13	10514
14	10276
15	10532

Total rows: 450   Query complete 00:00:00.108