

SQL Queries on Customer, Order, and Order Detail Tables in PostgreSQL

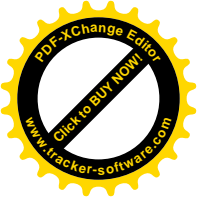
1) Display the names of all companies that did not place an order between 15.11.1996 and 18.02.1997.

Solution 1

```
postgres=# SELECT c.customer_name
postgres=# FROM customers c
postgres=# LEFT JOIN orders o
postgres=# ON c.customer_id = o.customer_id
postgres=# AND o.order_date BETWEEN '1996-11-15' AND '1997-02-18'
postgres=# WHERE o.order_id is null;
customer_name
-----
Alfreds Futterkiste
Ana Trujillo Emparedados y helados
Antonio Moreno Taquera
Around the Horn
Berglunds snabbkoop
Blauer See Delikatessen
Blondel pere et fils
Bolido Comidas preparadas
Bon app
Bottom-Dollar Marketse
Bs Beverages
Cactus Comidas para llevar
Centro comercial Moctezuma
Chop-suey Chinese
Comercio Mineiro
Consolidated Holdings
Drachenblut Delikatessend
Du monde entier
```

Solution 2

```
postgres=# SELECT customer_name
postgres=# FROM customers
postgres=# WHERE customer_id NOT IN (
postgres=#     SELECT customer_id
postgres=#     FROM orders
postgres=#     WHERE order_date BETWEEN '1996-11-15'::DATE AND '1997-02-18'::DATE
postgres=# );
customer_name
-----
Alfreds Futterkiste
Ana Trujillo Emparedados y helados
Antonio Moreno Taquera
Around the Horn
Berglunds snabbkoop
Blauer See Delikatessen
Blondel pere et fils
Bolido Comidas preparadas
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Bottom-Dollar Marketse
Bs Beverages
Cactus Comidas para llevar
Centro comercial Moctezuma
Chop-suey Chinese
Comercio Mineiro
Consolidated Holdings
Drachenblut Delikatessend
Du monde entier
```



2) Display the names of companies located in Mexico D.F.

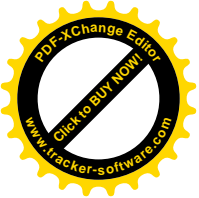
```
postgres=# -- Display the names of supplier companies located in Mexico D.F.
postgres=# SELECT customer_name, city
postgres=# FROM customers
postgres=# WHERE city = 'Mexico D.F.';
 customer_name | city
-----+-----
Ana Trujillo Emparedados y helados | Mexico D.F.
Antonio Moreno Taquera | Mexico D.F.
Centro comercial Moctezuma | Mexico D.F.
Pericles Comidas clasicas | Mexico D.F.
Tortuga Restaurante | Mexico D.F.
(5 rows)
```

3) Display only those orders that were placed between 12.12.1996 and 18.02.1997.

```
postgres=# -- Display only those orders that were placed between 12.12.1996 and 18.02.1997
postgres=# SELECT order_id, order_date
postgres=# FROM orders
postgres=# WHERE order_date BETWEEN '1996-12-12'::DATE AND '1997-02-18'::DATE;
 order_id | order_date
-----+-----
(0 rows)
```

4) Display only those customers whose company names start with 'An'.

```
postgres=# SELECT customer_name
postgres=# FROM customers
postgres=# WHERE customer_name LIKE 'An%';
 customer_name
-----
Ana Trujillo Emparedados y helados
Antonio Moreno Taquera
(2 rows)
```



5) Retrieve the names of companies along with the details of orders they placed where the quantity ordered exceeds 100. Utilize table joins.

```
postgres=# SELECT c.customer_name, o.order_id, od.quantity
postgres=# FROM customers c
postgres=# JOIN orders o ON c.customer_id = o.customer_id
postgres=# JOIN order_details od ON o.order_id = od.order_id
postgres=# WHERE od.quantity > 100;
 customer_name | order_id | quantity
-----+-----+-----
 Save-a-lot Markets | 10398 | 120
 QUICK-Stop | 10451 | 120
 QUICK-Stop | 10515 | 120
 Ernst Handel | 10595 | 120
 Save-a-lot Markets | 10678 | 120
 Save-a-lot Markets | 10711 | 120
 Save-a-lot Markets | 10713 | 110
 Ernst Handel | 10764 | 130
 Ernst Handel | 10776 | 120
 Save-a-lot Markets | 10894 | 120
 Ernst Handel | 10895 | 110
 Ernst Handel | 11017 | 110
 Ernst Handel | 11072 | 130
(13 rows)
```

6) Display the following columns: customer name, quantity ordered. Sort the results by customers in descending order.

```
postgres=# SELECT c.customer_name, od.quantity
postgres=# FROM customers c
postgres=# JOIN orders o ON c.customer_id = o.customer_id
postgres=# JOIN order_details od ON o.order_id = od.order_id
postgres=# ORDER BY c.customer_name DESC;
 customer_name | quantity
-----+-----
 Wolski | 12
 Wolski | 7
 Wolski | 20
 Wolski | 30
 Wolski | 10
 Wolski | 2
 Wolski | 3
 Wolski | 15
 Wolski | 30
 Wolski | 6
 Wolski | 15
 Wolski | 15
 Wolski | 15
 Wolski | 3
 Wolski | 12
 Wolski | 10
 Wilman Kala | 6
 Wilman Kala | 6
 Wilman Kala | 3
```



7) Display the following columns: customer name, order date. Display the results in such a way that all customers from table 'customers' are shown in the results.



```
postgres=# SELECT c.customer_name, o.order_date
postgres=# FROM customers c
postgres=# LEFT JOIN orders o ON c.customer_id = o.customer_id;
```

customer_name	order_date
Wilman Kala	2021-07-04
Tradicao Hipermercados	2021-07-05
Hanari Carnes	2021-07-08
Victuailles en stock	2021-07-08
Supremes delices	2021-07-09
Hanari Carnes	2021-07-10
Chop-suey Chinese	2021-07-11
Richter Supermarkt	2021-07-12
Wellington Importadora	2021-07-15
HILARION-Abastos	2021-07-16
Ernst Handel	2021-07-17
Centro comercial Moctezuma	2021-07-18
Old World Delicatessen	2021-07-19
Que Delicia	2021-07-19
Rattlesnake Canyon Grocery	2021-07-22