PostgreSQL Presentation

By Ezenwere Chigozie Augustine

Queries

1. What is the total quantity of products ordered?

2. What is the average price of products in each category?

3. Which product is the most ordered in each city?

4. Query to find the total quantity of each product ordered, only for properties in New York.

5. Which product has the highest price?

6. What is the total revenue generated from properties in each state?

7. Query to find the property that has ordered the most quantity of products.

8. Query to find the total revenue generated for each product category.

9. Query to find the city that has the highest number of orders.

10. Query to find the total quantity of products ordered in the year 2015.

1. What is the total quantity of products ordered?

```
1   select *
2   from orders;
3   select *
4   from propertyinfo;
5   select *
6   from products;
7
8   --1. What is the total quantity of products ordered?
9   select sum("Quantity") as "Total quantity ordered"
10  from orders;
11
```

Query   Query History

Data Output   Messages   Notifications

	Total quantity ordered bigint 🔒
1	10096

2. What is the average price of products in each category?

```sql
--2.   What is the average price of products in each category?
select "ProductCategory", round(avg("Price"),1) as "Average price"
from products
group by "ProductCategory";
```

Output   Messages   Notifications

ProductCategory character		Average price numeric
Public Areas	...	58.6
Furnishings	...	83.7
Housekeeping	...	23.0
Maintenance	...	55.0
Office Supplies	...	22.7

3. Which product is the most ordered in each city?

```sql
17  --3.  Which product is the most ordered in each city?
18  select o."PropertyID", p."PropertyCity", prod."ProductName", sum(o."Quantity") as "Total quantity ordered"
19  from orders o
20  join propertyinfo p on o."PropertyID" = p."PropID"
21  join products prod on o."ProductID" = prod."ProductID"
22  group by o."PropertyID", p."PropertyCity", prod."ProductName"
23  order by "Total quantity ordered" desc;
24
```

Data Output   Messages   Notifications

	PropertyID integer	PropertyCity character	ProductName character	Total quantity ordered bigint
1	4	Seattle	Monitor	20
2	12	Dallas	Light Bulb	17
3	3	Portland	Portable Drill	17
4	14	Nashville	Screws	17
5	4	Seattle	Invisible Tape	17
6	14	Nashville	Computer Desk	16
7	8	Philadelphia	Luggage Cart	16
8	2	Cincinnati	Large Plant	16

Total rows: 1000 of 1733   Query complete 00:00:00.057

4. Query to find the total quantity of each product ordered, only for properties in New York.

```sql
--4. Query to find the total quantity of each product ordered, only for properties in New York.
SELECT prod."ProductName", SUM(o."Quantity") as "Total Quantity Ordered"
FROM orders o
JOIN propertyinfo p ON o."PropertyID" = p."PropID"
JOIN products prod ON o."ProductID" = prod."ProductID"
WHERE p."PropertyState" = 'New York'
GROUP BY prod."ProductName";
```

ta Output   Messages   Notifications

ProductName character	Total Quantity Ordered bigint
Wireless Router	8
Mirror	4
Side Table	9
Ladder	2
Gaffer's Tape	6
Chest of Drawers	4
Mouthwash	5
Door Lock	3

5.   Which product has the highest price?

```sql
--5. Which product has the highest price?
select "ProductName", "Price"
from products
--order by "Price" desc;
where "Price" = (
    select max("Price")
    from products
);
```

ta Output   Messages   Notifications

ProductName character		Price integer
Bed (King)	...	300

6.   What is the total revenue generated from properties in each state?

```sql
--6. What is the total revenue generated from properties in each state?
SELECT p."PropertyState", SUM(prod."Price" * o."Quantity") AS "TotalRevenue"
FROM orders o
JOIN propertyInfo p ON o."PropertyID" = p."PropID"
JOIN products prod ON o."ProductID" = prod."ProductID"
GROUP BY p."PropertyState"
ORDER BY p."PropertyState";
```

ta Output   Messages   Notifications

PropertyState character	TotalRevenue bigint
Arizona	25135
California	54529
Colorado	23515
Florida	26445
Georgia	25133
Illinois	29218
Louisiana	27483
Massachusetts	27094

7. Query to find the property that has ordered the most quantity of products.

```sql
--7. Query to find the property that has ordered the most quantity of products.
SELECT "PropertyID", SUM("Quantity") as "Total Quantity Ordered"
FROM orders
GROUP BY "PropertyID"
ORDER BY "Total Quantity Ordered" DESC
LIMIT 1;
```

ta Output   Messages   Notifications

PropertyID integer	Total Quantity Ordered bigint
8	551

8. Query to find the total revenue generated for each product category.

```sql
-- 8. Query to find the total revenue generated for each product category.
SELECT prod."ProductCategory", SUM(prod."Price" * o."Quantity") as "Total Revenue"
FROM orders o
JOIN products prod ON o."ProductID" = prod."ProductID"
GROUP BY prod."ProductCategory";
```

ta Output   Messages   Notifications

ProductCategory character		Total Revenue bigint
Public Areas	...	133076
Furnishings	...	226865
Housekeeping	...	50413
Maintenance	...	93575
Office Supplies	...	29550

9. Query to find the total revenue generated for each product category.

```sql
-- 9. Query to find the city that has the highest number of orders.
SELECT p."PropertyCity", COUNT(o."OrderID") as "Number of Orders"
FROM orders o
JOIN propertyinfo p ON o."PropertyID" = p."PropID"
GROUP BY p."PropertyCity"
ORDER BY "Number of Orders" DESC
LIMIT 1;
```
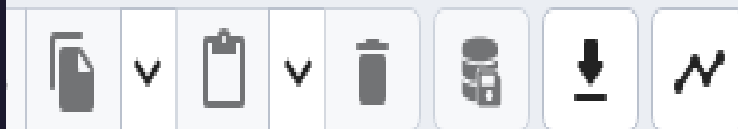
ta Output   Messages   Notifications

PropertyCity character		Number of Orders bigint
Philadelphia	...	272

10. Query to find the total quantity of products ordered in the year 2015.

```sql
-- 10. Query to find the total quantity of products ordered in the year 2015.
SELECT SUM("Quantity") as "Total Quantity Ordered in 2015"
FROM orders
WHERE EXTRACT(YEAR FROM "OrderDate"::date) = 2015;
```

ta Output   Messages   Notifications

Total Quantity Ordered in 2015 bigint
5015

11.   Query to find the total revenue generated from products in the 'Housekeeping' category.

```sql
-- 11. Query to find the total revenue generated from products in the 'Housekeeping' category.
SELECT SUM(prod."Price" * o."Quantity") as "Total Revenue from Housekeeping"
FROM orders o
JOIN products prod ON o."ProductID" = prod."ProductID"
WHERE prod."ProductCategory" = 'Housekeeping';
```

ta Output   Messages   Notifications

Total Revenue from Housekeeping 🔒 bigint
50413

12. Query to find the most popular product category based on the quantity ordered.

```sql
-- 12. Query to find the most popular product category based on the quantity ordered.
SELECT prod."ProductCategory", SUM(o."Quantity") as "Total Quantity Ordered"
FROM orders o
JOIN products prod ON o."ProductID" = prod."ProductID"
GROUP BY prod."ProductCategory"
ORDER BY "Total Quantity Ordered" DESC
LIMIT 1;
```

ta Output   Messages   Notifications

ProductCategory character	Total Quantity Ordered bigint
Furnishings	2760

13. Query to find the average price of products ordered from properties in Oregon.

```sql
-- 13. Query to find the average price of products ordered from properties in Oregon.
SELECT round(AVG(prod."Price"),2) as "Average Price in Oregon"
FROM orders o
JOIN propertyinfo p ON o."PropertyID" = p."PropID"
JOIN products prod ON o."ProductID" = prod."ProductID"
WHERE p."PropertyState" = 'Oregon';
```

ta Output   Messages   Notifications

| Average Price in Oregon |
numeric
51.24

14. Query to find the product that has been ordered from the most number of different properties.

```sql
-- 14. Query to find the product that has been ordered from the most number of different properties.
SELECT prod."ProductName", COUNT(DISTINCT o."PropertyID") as "Number of Properties Ordered From"
FROM orders o
JOIN products prod ON o."ProductID" = prod."ProductID"
GROUP BY prod."ProductName"
ORDER BY "Number of Properties Ordered From" DESC
LIMIT 1;
```

a Output   Messages   Notifications

ProductName character	Number of Properties Ordered From bigint
Bar Stool	20

15. Query to find the total quantity of each product ordered, for properties in cities that have 'New' in their name.

```sql
-- 15. Query to find the total quantity of each product ordered, for properties in cities that have 'New' in their name.
SELECT prod."ProductName", SUM(o."Quantity") as "Total Quantity Ordered"
FROM orders o
JOIN propertyinfo p ON o."PropertyID" = p."PropID"
JOIN products prod ON o."ProductID" = prod."ProductID"
WHERE p."PropertyCity" LIKE '%New%'
GROUP BY prod."ProductName";
```

ta Output   Messages   Notifications

ProductName character	Total Quantity Ordered bigint
Wireless Router	18
Mirror	10
Staples	5
Side Table	11
Ladder	16
Gaffer's Tape	6
Chest of Drawers	4
Mouthwash	7