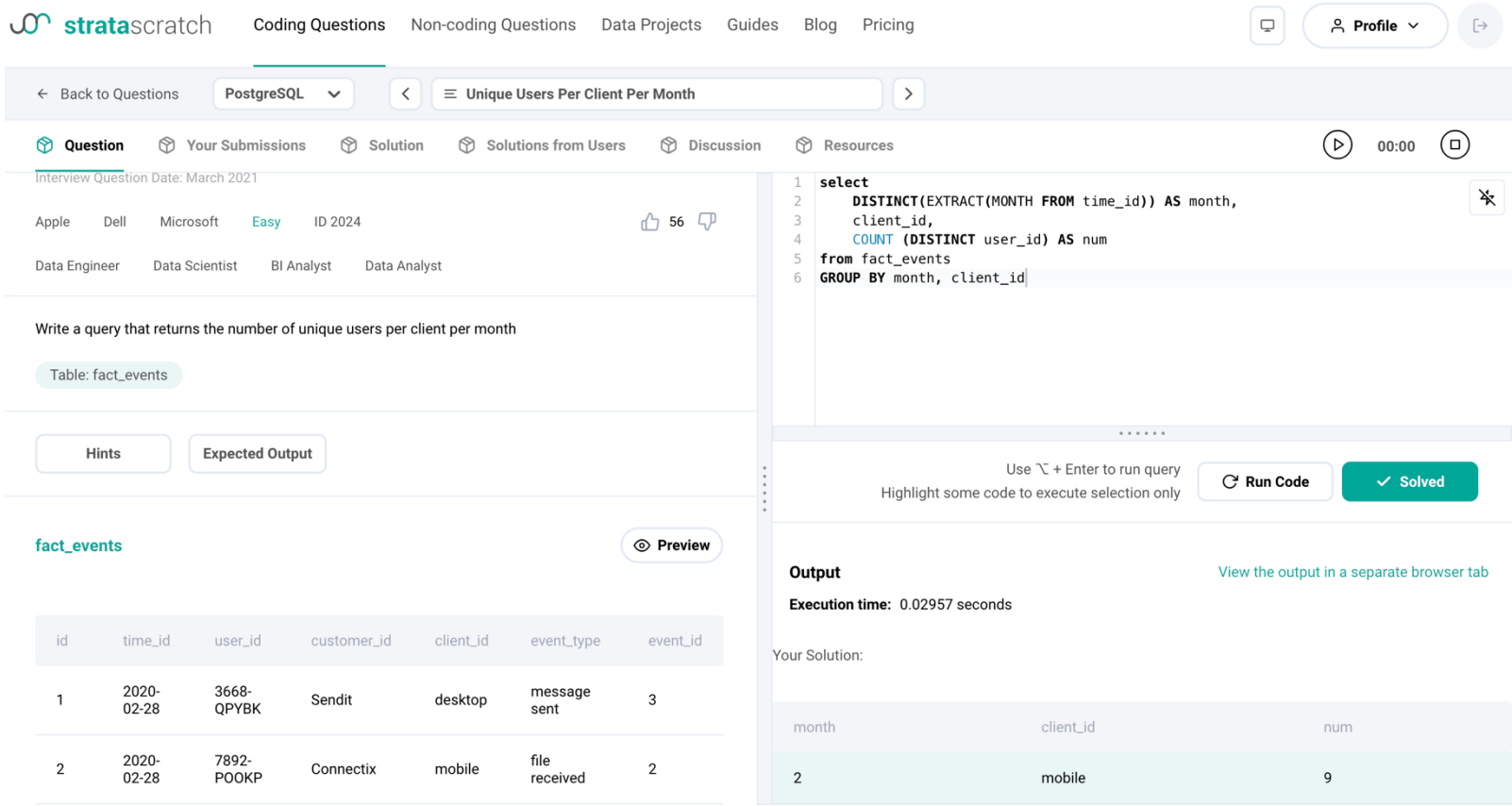
STRATASCRATCH EXCERCISES

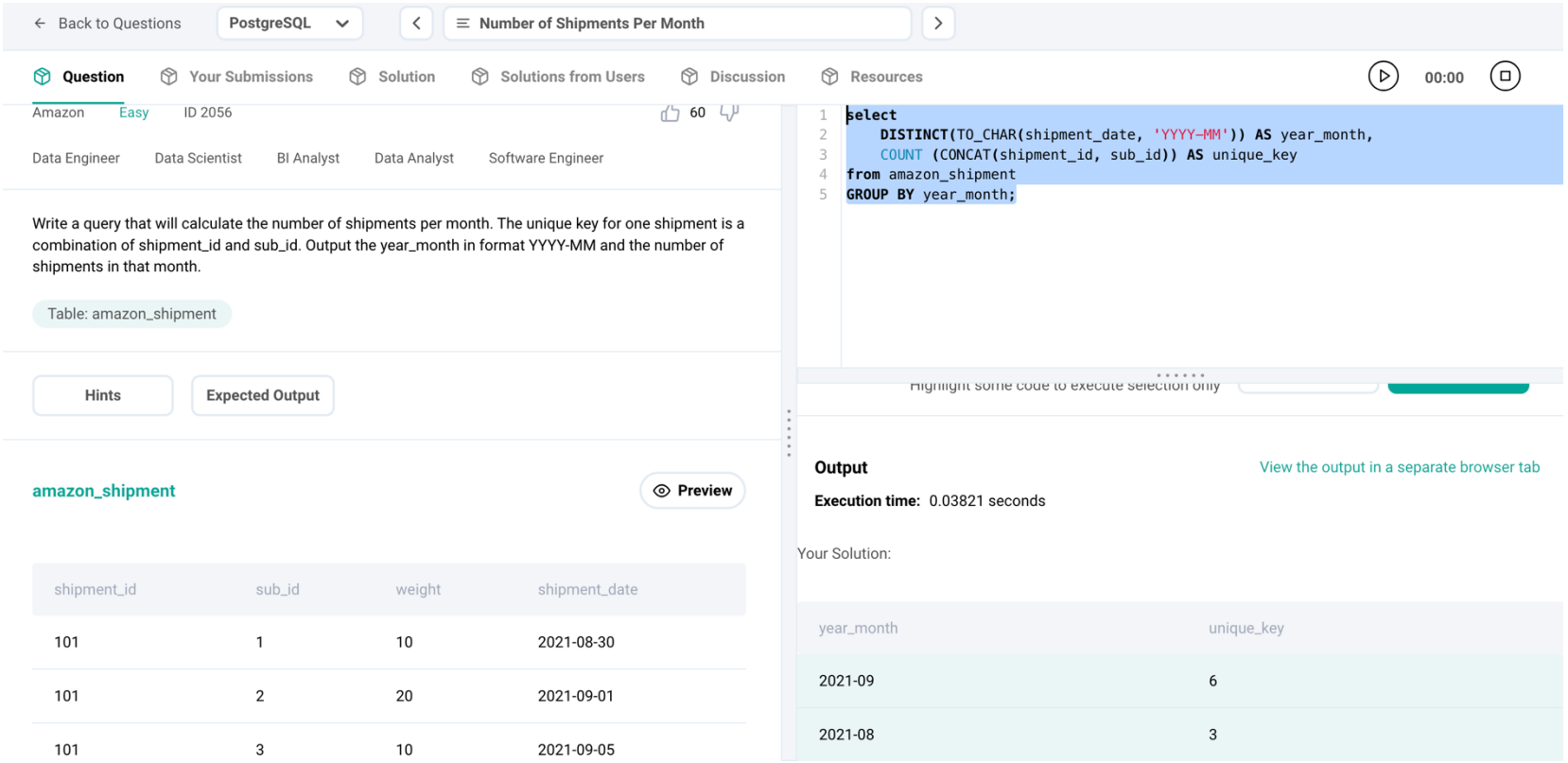
Write a query that returns the number of unique users per client per month

```
SELECT
   DISTINCT(EXTRACT(MONTH FROM time_id)) AS month,
   client_id,
   COUNT (DISTINCT user_id) AS num_users
from fact_events
GROUP BY month, client_id
```



Write a query that will calculate the number of shipments per month. The unique key for one shipment is a combination of shipment_id and sub_id. Output the year_month in format YYYY-MM and the number of shipments in that month.

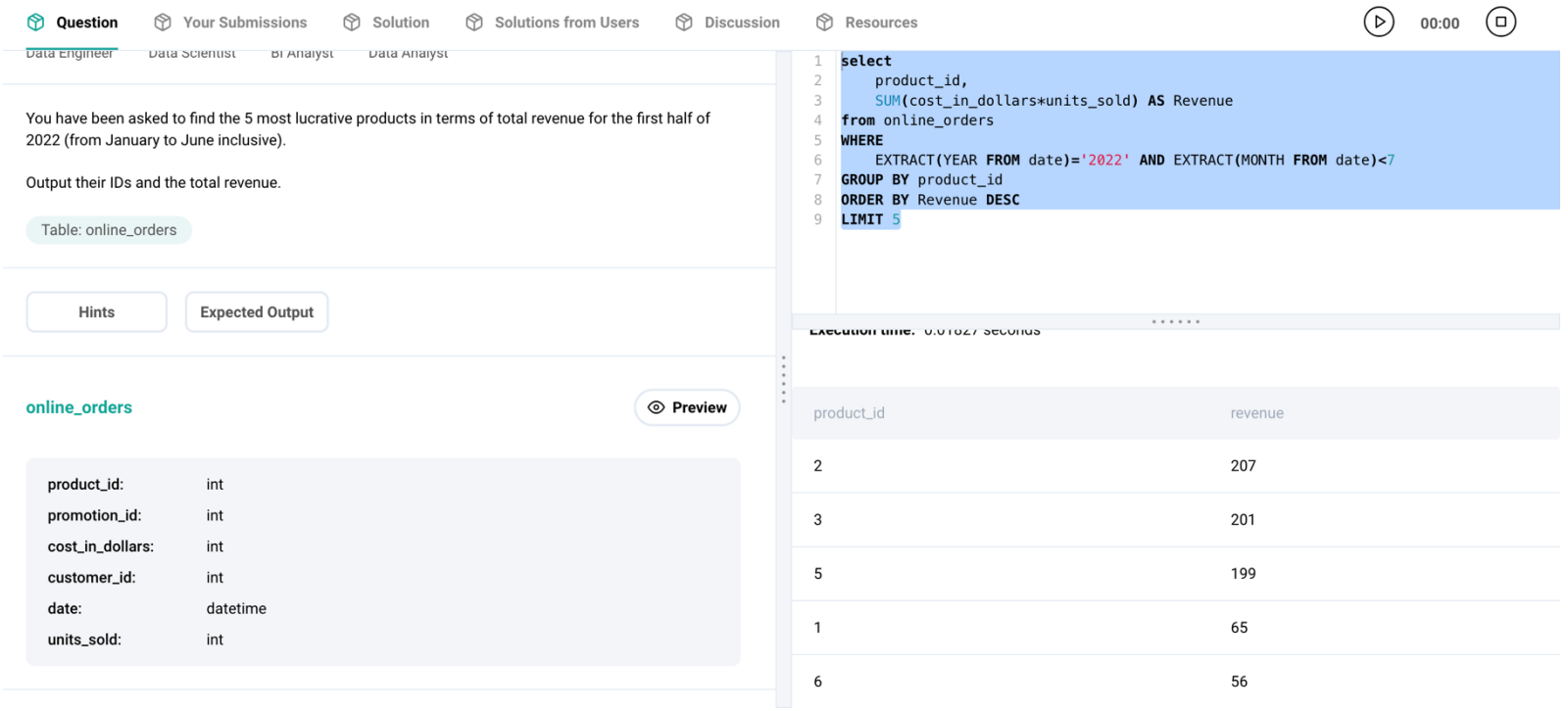
```
select
   DISTINCT(TO_CHAR(shipment_date, 'YYYY-MM')) AS year_month,
   COUNT (CONCAT(shipment_id, sub_id)) AS unique_key
from amazon_shipment
GROUP BY year_month;
```



You have been asked to find the 5 most lucrative products in terms of total revenue for the first half of 2022 (from January to June inclusive).

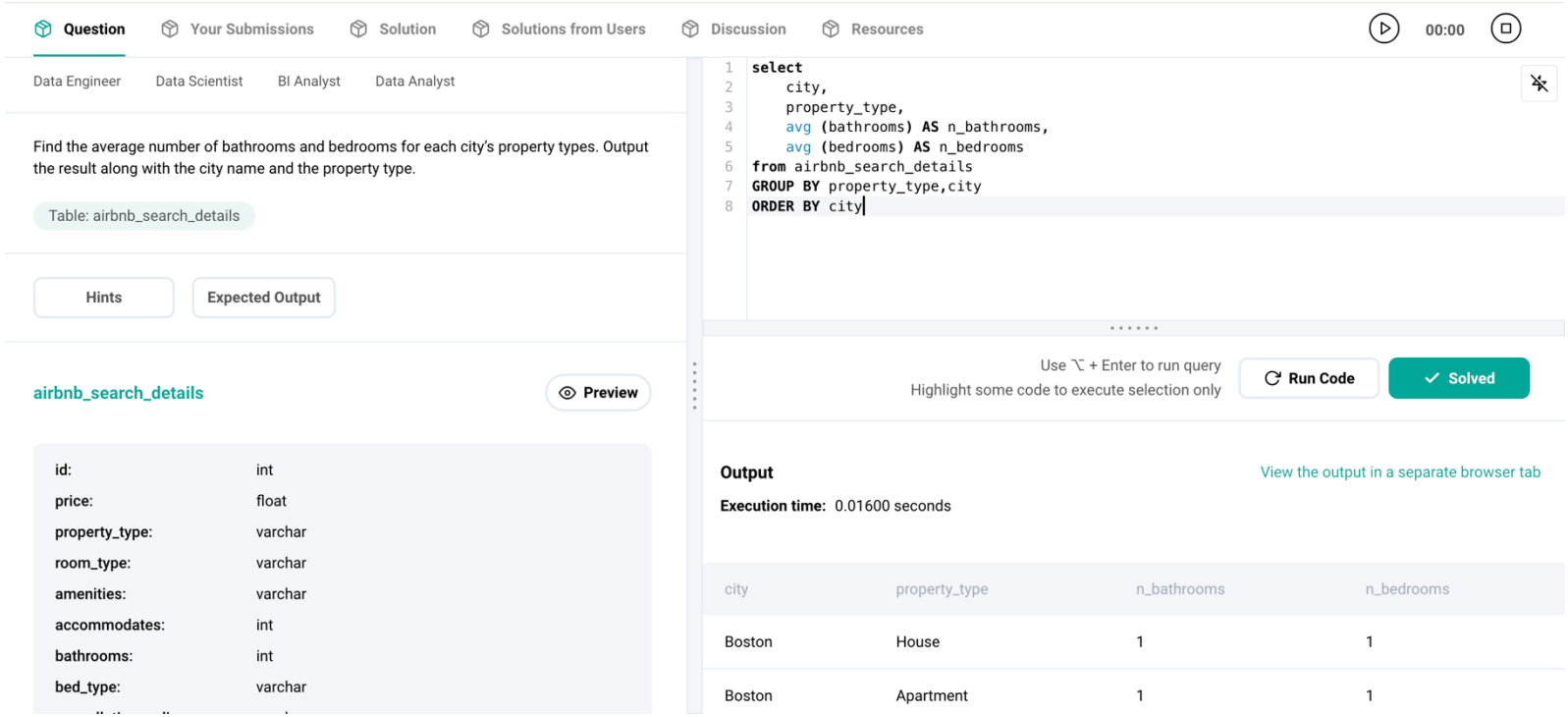
Output their IDs and the total revenue.

```
select
    product_id,
    SUM(cost_in_dollars*units_sold) AS Revenue
from online_orders
WHERE
    EXTRACT(YEAR FROM date)='2022' AND EXTRACT(MONTH FROM date)<7
GROUP BY product_id
ORDER BY Revenue DESC
LIMIT 5
```



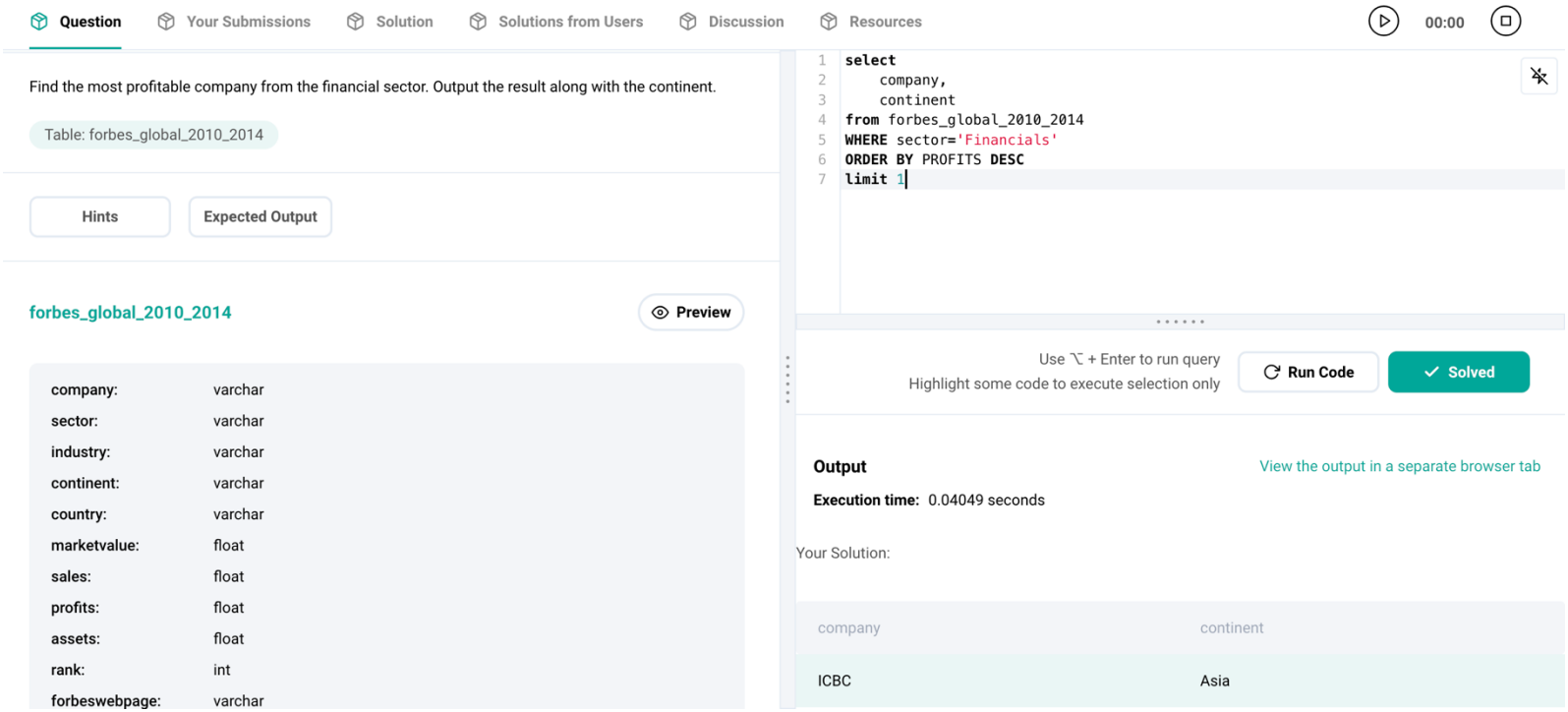
Find the average number of bathrooms and bedrooms for each city's property types. Output the result along with the city name and the property type.

```
select
    city,
    property_type,
    avg (bathrooms) AS n_bathrooms,
    avg (bedrooms) AS n_bedrooms
from airbnb_search_details
GROUP BY property_type,city
ORDER BY city
```



Find the most profitable company from the financial sector. Output the result along with the continent.

```
select
   company,
   continent
from forbes_global_2010_2014
WHERE sector='Financials'
ORDER BY PROFITS DESC
limit 1
```

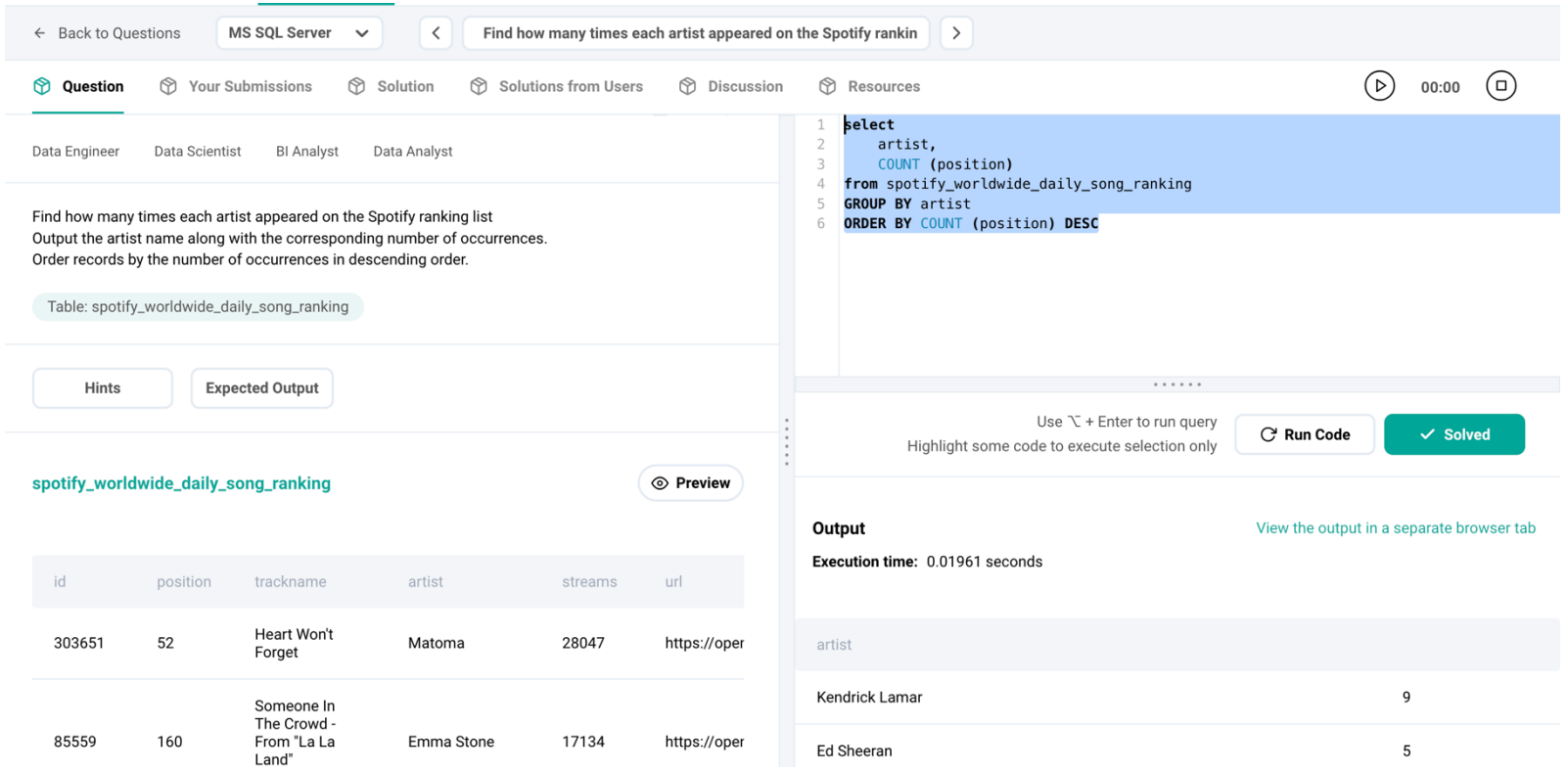


Find how many times each artist appeared on the Spotify ranking list

Output the artist name along with the corresponding number of occurrences.

Order records by the number of occurrences in descending order.

```
select
    artist,
    COUNT (position)
from spotify_worldwide_daily_song_ranking
GROUP BY artist
ORDER BY COUNT (position) DESC
```



Write a query that calculates the difference between the highest salaries found in the marketing and engineering departments. Output just the absolute difference in salaries.

```
select
        (select
           MAX(salary)
        from db_employee
        JOIN db_dept ON db_employee.department_id=db_dept.id
        WHERE department IN ('marketing')
        )-(select
           MAX(salary)
        from db_employee
        JOIN db_dept ON db_employee.department_id=db_dept.id
        WHERE department IN ('engineering')) AS value
```