

Top 5 Artists [Spotify SQL Interview Question]

Assume there are three Spotify tables containing information about the artists, songs, and music charts. Write a query to determine the top 5 artists whose songs appear in the Top 10 of the `global_song_rank` table the highest number of times. From now on, we'll refer to this ranking number as "song appearances".

Output the top 5 artist names in ascending order along with their song appearances ranking (not the number of song appearances, but the rank of who has the most appearances). The order of the rank should take precedence.

For example, Ed Sheeran's songs appeared 5 times in Top 10 list of the global song rank table; this is the highest number of appearances, so he is ranked 1st. Bad Bunny's songs appeared in the list 4, so he comes in at a close 2nd.

Assumptions:

- If two artists' songs have the same number of appearances, the artists should have the same rank.
- The rank number should be continuous (1, 2, 2, 3, 4, 5) and not skipped (1, 2, 2, 4, 5).

`artists` Table:

Column Name	Type
artist_id	integer
artist_name	varchar

`artists` Example Input:

artist_id	artist_name
101	Ed Sheeran
120	Drake

`songs` Table:

Column Name	Type
song_id	integer
artist_id	integer

`songs` Example Input:

song_id	artist_id
45202	101
19960	120

`global_song_rank` Table:

Column Name	Type
day	integer (1-52)
song_id	integer
rank	integer (1-1,000,000)

`global_song_rank` Example Input:

day	song_id	rank
1	45202	5
3	45202	2
1	19960	3
9	19960	15

Solution Query ---->

```
with rank_ as (  
  select  
    a.artist_name,  
    count(day) as count_,  
    1 as support  
  from  
    artists a  
  left join  
    songs s  
  on a.artist_id = s.artist_id  
  left join  
    (  
      select  
        *  
      from  
        global_song_rank  
      where  
        rank ≤ 10  
    ) r on s.song_id = r.song_id  
  group by 1  
  order by 1  
)  
select  
  artist_name,  
  rank_1  
from  
  (  
    select  
      *,  
      dense_rank() over(partition by support order by count_ desc) as rank_1  
    from  
      rank_  
  ) sub  
where  
  rank_1 < 6  
order by  
  2, 1
```