Day52 - March 28th 2024

1. Started my day at 6 am
2. Solved `45. Jump Game II` on leetcode
3. Please find my explanation here : 📄 DSA_Arrays_03/28/2024
4. Learned snowflake schema and star schema in data modeling class of today
   Find the doc : 📄 Data Modeling 03/28/2024
5. Ended my day by solving complex SQL questions on Data Lemur

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Second Day Confirmation [TikTok SQL Interview Question]

Description   Solution   Discussion   Submissions

Easy   TikTok   🐦 Share on Twitter   in Share on LinkedIn

Assume you're given tables with information about TikTok user sign-ups and confirmations through email and text. New users on TikTok sign up using their email addresses, and upon sign-up, each user receives a text message confirmation to activate their account.

Write a query to display the user IDs of those who did not confirm their sign-up on the first day, but confirmed on the second day.

Definition:

- `action_date` refers to the date when users activated their accounts and confirmed their sign-up through text messages.

`emails` Table:

Column Name	Type
email_id	integer
user_id	integer
signup_date	datetime

`emails` Example Input:

email_id	user_id	signup_date
125	7771	06/14/2022 00:00:00
433	1052	07/09/2022 00:00:00

PostgreSQL 14   Run Code   Submit

Output

user_id
1052
1235

```sql
with cte as
(SELECT *,row_number() over(PARTITION BY e.user_id order by t.action_date) as rn FROM ema
left join texts t on e.email_id = t.email_id)
select user_id from cte
where rn = 2 and signup_action = 'Confirmed'
```

PostgreSQL 14   Run Code   Submit

Output

user_id
1052
1235

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‹ Back to questions

Cards Issued Difference [JPMorgan Chase SQL Interview Question]

Description | Solution | Discussion | Submissions

Easy | JPMorgan Chase | 🐦 Share on Twitter | in Share on LinkedIn

Your team at JPMorgan Chase is preparing to launch a new credit card, and to gain some insights, you're analyzing how many credit cards were issued each month.

Write a query that outputs the name of each credit card and the difference in the number of issued cards between the month with the highest issuance cards and the lowest issuance. Arrange the results based on the largest disparity.

`monthly_cards_issued` **Table:**

Column Name	Type
issue_month	integer
issue_year	integer
card_name	string
issued_amount	integer

`monthly_cards_issued` **Example Input:**

card_name	issued_amount	issue_month	issue_year
Chase Freedom Flex	55000	1	2021
Chase Freedom Flex	60000	2	2021
Chase Freedom Flex	65000	3	2021
Chase Freedom Flex	70000	4	2021

```
1
```

PostgreSQL 14 Run Code Submit

Output ▾

card_name	difference
Chase Sapphire Reserve	30000
Chase Freedom Flex	15000

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Description | Solution | Discussion | **Submissions**

Accepted

Congrats 🎉 - Share this problem, and your solution, on LinkedIn or Twitter!

🐦 Share on Twitter | in Share on LinkedIn

In your post, don't forget to tag Nick Singh, so that he can comment on and share your post with his audience of 150k+ followers on LinkedIn and 25k+ followers on Twitter (which will give your post and profile more visibility)!

Output

card_name	difference
Chase Sapphire Reserve	30000
Chase Freedom Flex	15000

Expected

card_name	difference
Chase Sapphire Reserve	30000
Chase Freedom Flex	15000

```sql
1  SELECT card_name, max(issued_amount)-min(issued_amount) as difference FROM monthly_cards_
2  group by card_name
3  order by difference desc;
4
```

PostgreSQL 14 Run Code Submit

Output ▾

card_name	difference
Chase Sapphire Reserve	30000
Chase Freedom Flex	15000

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‹ Back to questions

Compressed Mean [Alibaba SQL Interview Question]

Description | Solution | Discussion | Submissions

Easy Alibaba 🐦 Share on Twitter in Share on LinkedIn

You're trying to find the mean number of items per order on Alibaba, rounded to 1 decimal place using tables which includes information on the count of items in each order (`item_count` table) and the corresponding number of orders for each item count (`order_occurrences` table).

`items_per_order` **Table:**

Column Name	Type
item_count	integer
order_occurrences	integer

`items_per_order` **Example Input:**

item_count	order_occurrences
1	500
2	1000
3	800
4	1000

There are a total of 500 orders with one item per order, 1000 orders with two items per order, and 800 orders with three items per order."

Example Output:

PostgreSQL 14   Run Code Submit

Output

mean
3.9

```sql
SELECT ROUND(sum(item_count::DECIMAL*order_occurrences)/sum(order_occurrences),1)
as mean FROM items_per_order;
```

PostgreSQL 14   Run Code Submit

Output

mean
3.9