

Day51 - March 27th 2024

1. Started my day as usual
2. Solved leetcode problem "JUMP GAME"

**JUMP GAME**

Question: Given an array, where each element represents the maximum jump possible, determine if you can reach the last index.

[ 2 , 3 , 1 , 1 , 4 ]      [ 3 , 2 , 1 , 0 , 4 ]

Jump Game (LeetCode 55) | Full solution with animations and visuals | Greedy Algorithms

Nikhil Lohia  
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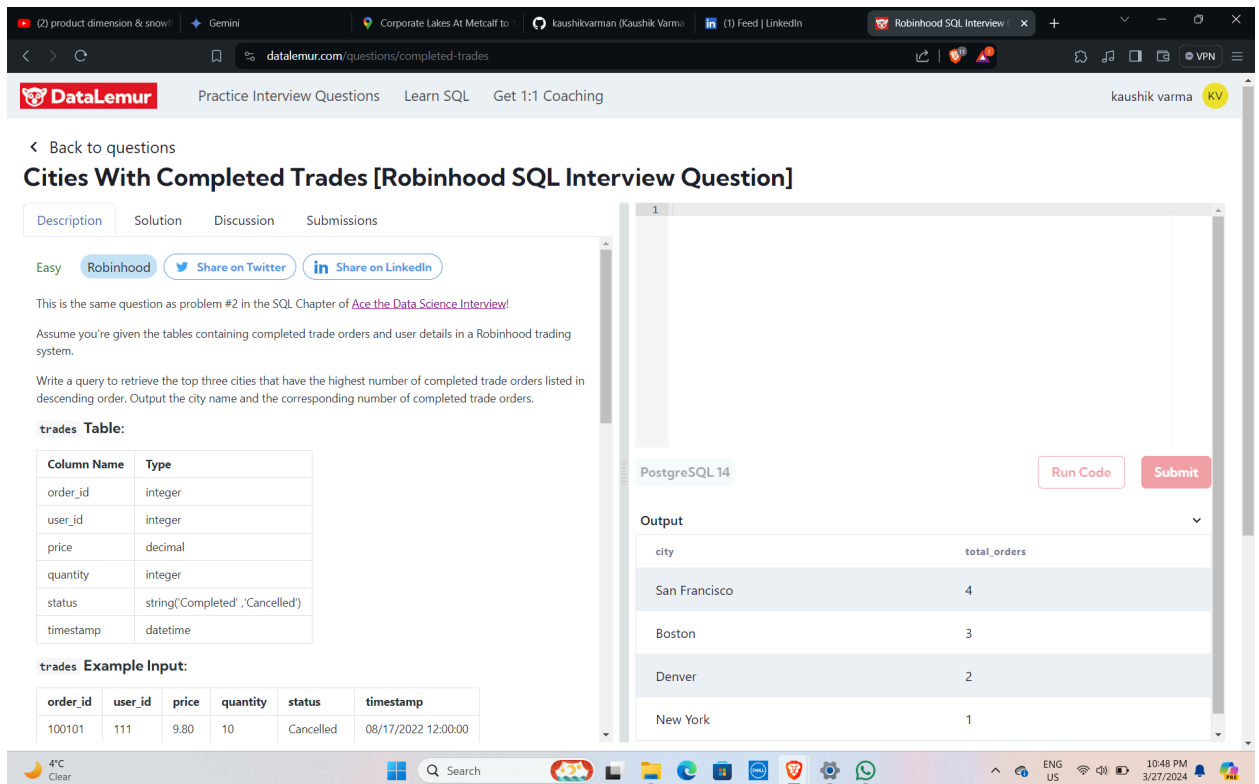
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3. Initially was not able to solve it...as it was greedy algo
4. Learned how to approach a greedy algorithm :  
[https://docs.google.com/document/d/1YExDMdGZadplA5tjAqS\\_YV3KPp3N2XaaDNksyH\\_IL0c/edit?usp=sharing](https://docs.google.com/document/d/1YExDMdGZadplA5tjAqS_YV3KPp3N2XaaDNksyH_IL0c/edit?usp=sharing)
5. Started learning data modeling : Data Modeling 03/27/2024

## 6. Solved multiple complex SQL on data lemur



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### Cities With Completed Trades [Robinhood SQL Interview Question]

Description Solution Discussion Submissions

Easy [Robinhood](#) [Share on Twitter](#) [Share on LinkedIn](#)

This is the same question as problem #2 in the SQL Chapter of [Ace the Data Science Interview!](#)

Assume you're given the tables containing completed trade orders and user details in a Robinhood trading system.

Write a query to retrieve the top three cities that have the highest number of completed trade orders listed in descending order. Output the city name and the corresponding number of completed trade orders.

**trades Table:**

Column Name	Type
order_id	integer
user_id	integer
price	decimal
quantity	integer
status	string('Completed', 'Cancelled')
timestamp	datetime

**trades Example Input:**

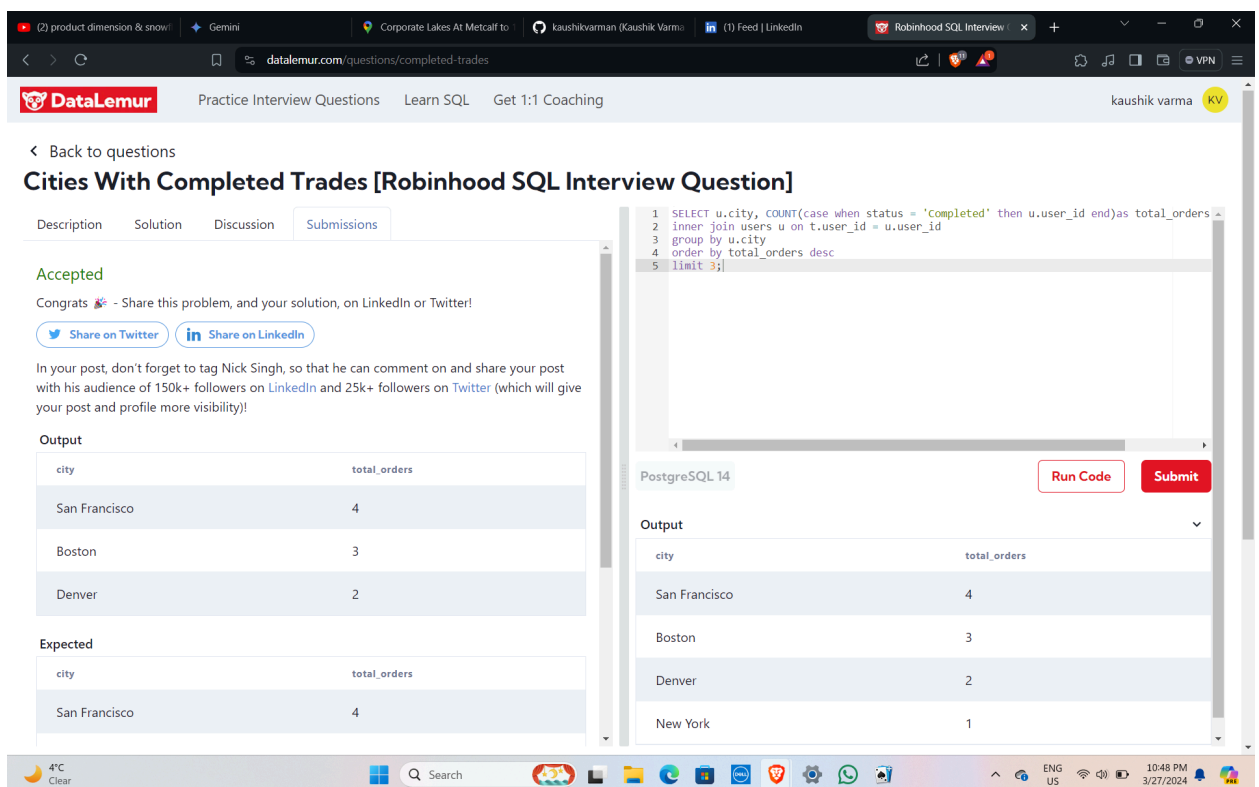
order_id	user_id	price	quantity	status	timestamp
100101	111	9.80	10	Cancelled	08/17/2022 12:00:00

PostgreSQL 14

Run Code Submit

**Output**

city	total_orders
San Francisco	4
Boston	3
Denver	2
New York	1



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### Cities With Completed Trades [Robinhood SQL Interview Question]

Description Solution Discussion Submissions

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

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**

city	total_orders
San Francisco	4
Boston	3
Denver	2

**Expected**

city	total_orders
San Francisco	4

PostgreSQL 14

Run Code Submit

**Output**

city	total_orders
San Francisco	4
Boston	3
Denver	2
New York	1

```
1 SELECT u.city, COUNT(case when status = 'Completed' then u.user_id end) as total_orders
2 inner join users u on t.user_id = u.user_id
3 group by u.city
4 order by total_orders desc
5 limit 3;
```

2 product dimension & snowflake

Gemini

Corporate Lakes At Metcalf to

kaushikvarman (Kaushik Varma)

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Amazon SQL Interview Question

datalemur.com/questions/sql-avg-review-ratings

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Average Review Ratings [Amazon SQL Interview Question]

DescriptionSolutionDiscussionSubmissions

EasyAmazonShare on TwitterShare on LinkedIn

Given the reviews table, write a query to retrieve the average star rating for each product, grouped by month. The output should display the month as a numerical value, product ID, and average star rating rounded to two decimal places. Sort the output first by month and then by product ID.

P.S. If you've read the Ace the Data Science Interview, and liked it, consider writing us a review?

reviews Table:

Column Name	Type
review_id	integer
user_id	integer
submit_date	datetime
product_id	integer
stars	integer (1-5)

reviews Example Input:

review_id	user_id	submit_date	product_id	stars
6171	123	06/08/2022 00:00:00	50001	4
7802	265	06/10/2022 00:00:00	69852	4
5293	362	06/18/2022 00:00:00	50001	3

1

PostgreSQL 14

Run CodeSubmit

Output

month	product	round
6	12580	4.50
6	50001	3.50
5	25255	4.00
5	25600	4.33

4°C Clear

Search

ENG US

10:51 PM 3/27/2024

2 product dimension & snowflake

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kaushikvarman (Kaushik Varma)

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Amazon SQL Interview Question

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Average Review Ratings [Amazon SQL Interview Question]

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Output

month	product	round
5	25255	4.00
5	25600	4.33
6	12580	4.50
6	50001	3.50
6	69852	4.00
7	11223	5.00

123 SELECT EXTRACT(month from submit\_date) as month,product\_id as product,ROUND(avg(stars),2) as round

2 GROUP BY EXTRACT(month from submit\_date),product\_id

3 order by month,product ;

PostgreSQL 14

Run CodeSubmit

Output

month	product	round
5	25255	4.00
5	25600	4.33
6	12580	4.50
6	50001	3.50

4°C Clear

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Repeated Payments [Stripe SQL Interview Question]

DescriptionSolutionDiscussionSubmissions

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Sometimes, payment transactions are repeated by accident; it could be due to user error, API failure or a retry error that causes a credit card to be charged twice.

Using the transactions table, identify any payments made at the same merchant with the same credit card for the same amount within 10 minutes of each other. Count such repeated payments.

Assumptions:

- The first transaction of such payments should not be counted as a repeated payment. This means, if there are two transactions performed by a merchant with the same credit card and for the same amount within 10 minutes, there will only be 1 repeated payment.

transactions Table:

Column Name	Type
transaction_id	integer
merchant_id	integer
credit_card_id	integer
amount	integer
transaction_timestamp	datetime

transactions Example Input:

transaction id	merchant id	credit card id	amount	transaction timestamp
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1

PostgreSQL 14

Run CodeSubmit

Output

payment\_count

4

4°C

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Output

payment_count
4

Expected

payment_count
4

TIMESTATUSYOUR SUBMISSION

03/27/2024 23:20	Solved	Copy To Clipboard
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1234567891011121314151617181920\*/

PostgreSQL 14

Run CodeSubmit

Output

payment\_count

4

4°C

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