

Day47 - March 23rd 2024

1. Started my day as usual
2. Solved one leetcode problem and added explanation too

The screenshot shows a LeetCode submission for the problem "Remove Duplicates from Sorted Array". The submission is accepted, with a runtime of 70ms and memory of 18.01 MB. The code is in Python3 and includes a detailed explanation of the algorithm.

**Accepted**  
kaushik varma N submitted at Mar 23, 2024 10:44

**Runtime**  
70 ms  
Beats 4.38% of users with Python3

**Memory**  
18.01 MB  
Beats 24.65% of users with Python3

**Code**

```
class Solution:
    def removeDuplicates(self, nums: List[int]) -> int:
        k = 0
        for i in nums:
            if k < 1 or i != nums[k-1]:
                nums[k] = i
                k += 1
        return k
```

**Explanation:**  
Step1: Initializing the k=0..to use it as a new index in nums  
Step2: If k<1 means there are no elements in nums in k = 0..  
so we just insert i(nums[0]) in nums[k] and update k += 1  
Step3: In the next iteration..if k<1 or there's an element in the nums  
which is not equal to current element ..then we update the value  
of nums[k] = i  
Step4: If this condition fails..then it means that i and nums[k-1] is same  
so we skip this

**Testcase** | **Test Result**

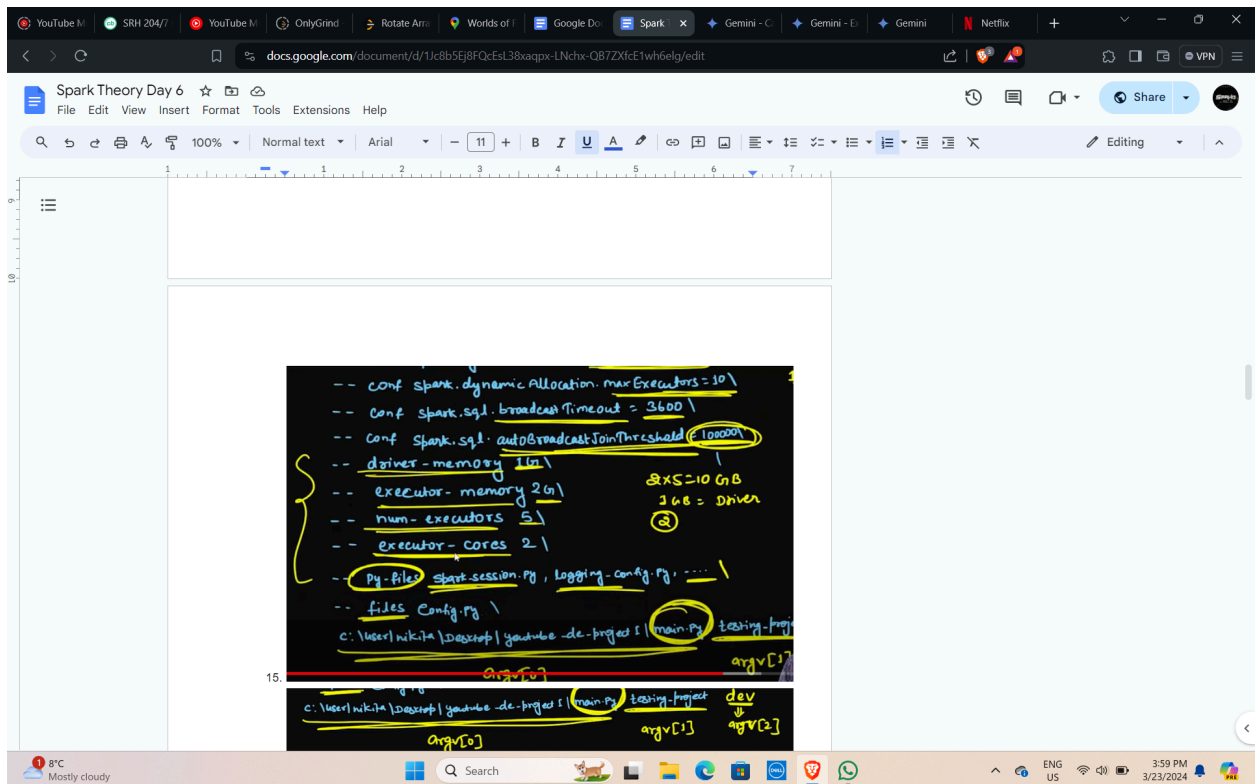
**Accepted** Runtime: 60 ms

**Case 1** | **Case 2**

Input

nums =  
[1,1,2]

### 3. Started my PySpark theory learning



### 4. ENDED my day by solving SQL questions from DataLemur

The screenshot shows the DataLemur website with a SQL interview question titled "Supercloud Customer [Microsoft SQL Interview Question]". The question is categorized as "Medium" and "Microsoft".

**Description:** A Microsoft Azure Supercloud customer is defined as a company that purchases at least one product from each product category. Write a query that effectively identifies the company ID of such Supercloud customers. As of 5 Dec 2022, data in the customer\_contracts and products tables were updated.

**customer\_contracts Table:**

Column Name	Type
customer_id	integer
product_id	integer
amount	integer

**customer\_contracts Example Input:**

customer_id	product_id	amount
1	1	1000
1	3	2000
1	5	1500
2	2	3000
2	6	2000

**SQL Query:**

```
1 SELECT c.customer_id FROM customer_contracts c
2 inner join products p on c.product_id = p.product_id
3 group by c.customer_id
4 having count(DISTINCT product_category) = (select count(distinct product_category) from products)
5
6
7 -- SELECT * FROM customer_contracts c
8 -- inner join products p on c.product_id = p.product_id
9 -- order by c.customer_id
```

**Output:**

customer_id
7



DataLemur

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kaushik varma

< Back to questions

Card Launch Success [JPMorgan Chase SQL Interview Question]

DescriptionSolutionDiscussionSubmissions

Output

card_name	issued_amount
Chase Sapphire Reserve	150000
Chase Freedom Flex	55000

Expected

card_name	issued_amount
Chase Sapphire Reserve	150000
Chase Freedom Flex	55000

TIME	STATUS	YOUR SUBMISSION
03/23/2024 23:06	Solved	Copy To Clipboard
03/23/2024 23:04	Error	Copy To Clipboard

```
1 with cte as(
2 SELECT *, row_number() over(PARTITION BY card_name ORDER BY issue_year, issue_month) as rn
3 select card_name, issued_amount
4 from cte
5 where rn = 1
6 order by issued_amount desc
7 
8 
9 -- select * from monthly_cards_issued
```

PostgreSQL 14Run CodeSubmit

Output

card_name	issued_amount
Chase Sapphire Reserve	150000
Chase Freedom Flex	55000