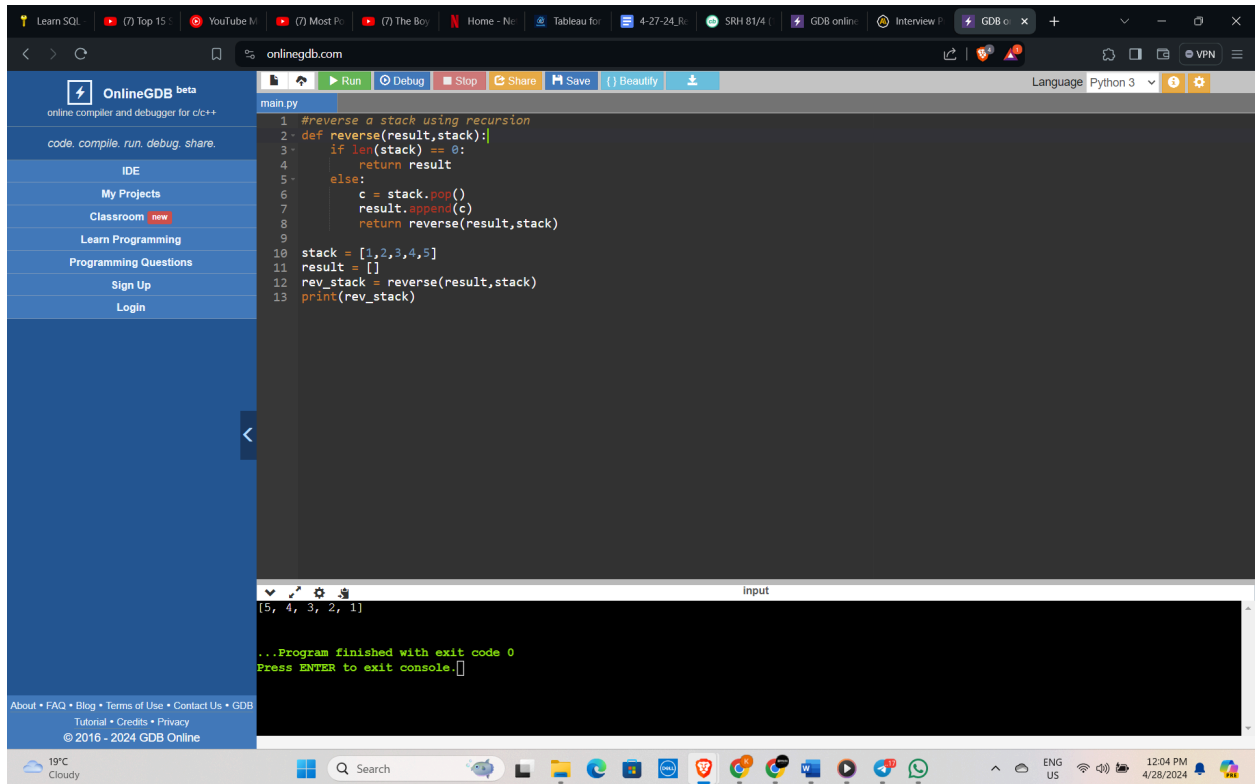


Day83 - April 28th 2024

1. Started my day as usual
2. Solved one leetcode problem
3. Worked on writing the code for Reversing a stack using recursion



The screenshot displays the OnlineGDB web interface. On the left is a blue sidebar with navigation links: 'IDE', 'My Projects', 'Classroom', 'Learn Programming', 'Programming Questions', 'Sign Up', and 'Login'. The main area features a code editor with the following Python code:

```
1 #reverse a stack using recursion
2 def reverse(result,stack):
3     if len(stack) == 0:
4         return result
5     else:
6         c = stack.pop()
7         result.append(c)
8         return reverse(result,stack)
9
10 stack = [1,2,3,4,5]
11 result = []
12 rev_stack = reverse(result,stack)
13 print(rev_stack)
```

Below the editor, the console output shows the input stack [5, 4, 3, 2, 1] and the message '...Program finished with exit code 0'. The browser's address bar shows 'onlinegdb.com' and the language is set to 'Python 3'. The Windows taskbar at the bottom shows the date as 4/28/2024 and the time as 12:04 PM.

#### 4. Revised my spark notes just to get the grip again

Spark Overview

1. What is a Apache spark?

Apache spark is a unified computing engine and set of libraries for parallel data processing on computer cluster

2. Libraries for parallel data processing on computer cluster
3. So we'll learn this terms now

① what is Apache spark?

② why Apache spark? what prod

Apache spark is a unified computing libraries for parallel data processing

- ① what is unified?
- ② what is computing engine?
- ③ what is libraries?
- ④ what is parallel data processing?
- ⑤ what is computer cluster?

4. So what is unified? Spark is used by all(DA's,DE's) see below

→ Spark is designed to substant wide range of task uses the same computing engine

5. Here we have 2 executor and assume that our partition are like this due to repartitions

executor-1

executor-2

6. And the data in the partitions look like this

P<sub>1</sub>

id	name
1	Manish
7	Ramesh
10	Rahul

P<sub>2</sub>

id	name
2	Ram
6	meera

P<sub>3</sub>

id	name
201	Rohan
205	Vibha

P<sub>4</sub>

id	name
12	se
202	8
206	2

P<sub>1</sub>

id	Salary
2	1000
205	2000

P<sub>2</sub>

id	Salary
6	2000
206	4000
10	5000

P<sub>3</sub>

id	Salary
1	6000
7	7000
11	8000

P<sub>4</sub>

id	Salary
301	3000
302	1000
112	1100

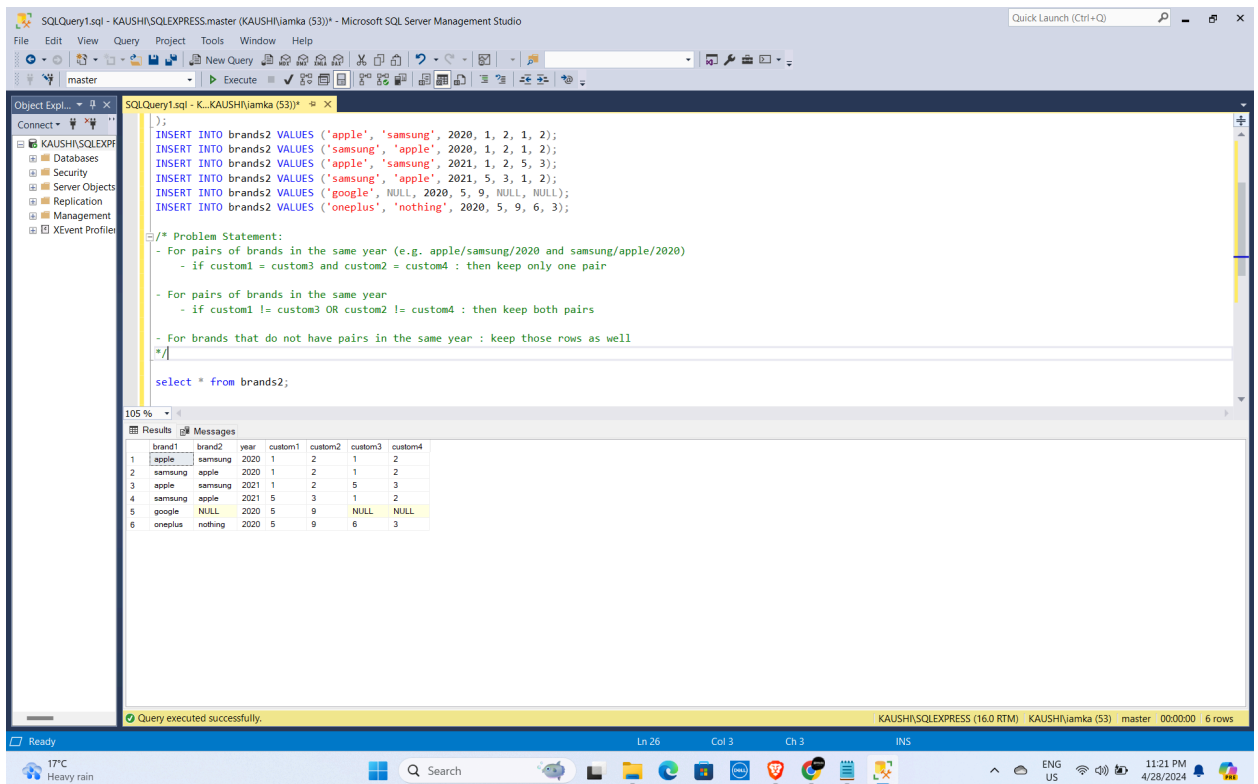
7. Df1 is emp data and df2 is salary data

8. Now we need salary of each emp

id	name	Salary
1	Manish	6000

9. Lets consider id = 1

## 5. Ended my day by solving complex SQL question from youtube



The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```

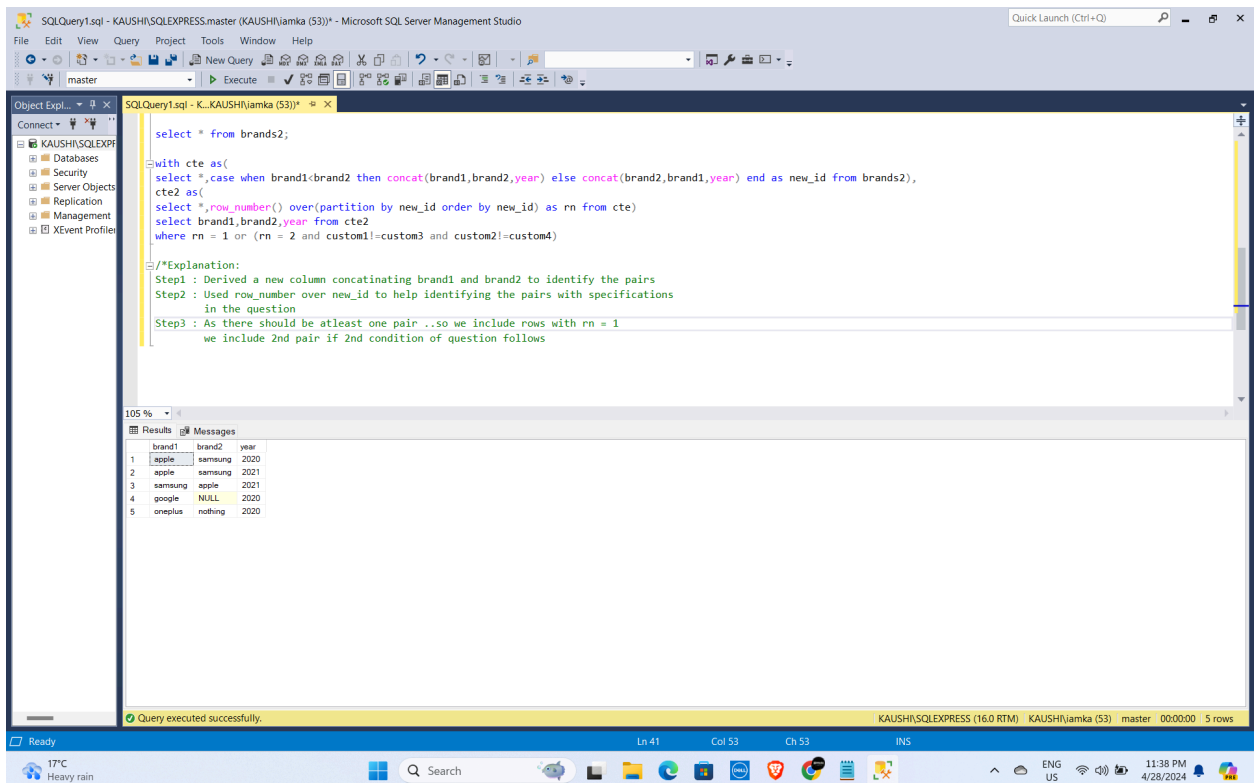
INSERT INTO brands2 VALUES ('apple', 'samsung', 2020, 1, 2, 1, 2);
INSERT INTO brands2 VALUES ('samsung', 'apple', 2020, 1, 2, 1, 2);
INSERT INTO brands2 VALUES ('apple', 'samsung', 2021, 1, 2, 5, 3);
INSERT INTO brands2 VALUES ('samsung', 'apple', 2021, 5, 3, 1, 2);
INSERT INTO brands2 VALUES ('google', NULL, 2020, 5, 9, NULL, NULL);
INSERT INTO brands2 VALUES ('oneplus', 'nothing', 2020, 5, 9, 6, 3);

```

Below the query editor, the "Results" pane displays the output of the query:

brand1	brand2	year	custom1	custom2	custom3	custom4
apple	samsung	2020	1	2	1	2
samsung	apple	2020	1	2	1	2
apple	samsung	2021	1	2	5	3
samsung	apple	2021	5	3	1	2
google	NULL	2020	5	9	NULL	NULL
oneplus	nothing	2020	5	9	6	3

The status bar at the bottom indicates "Query executed successfully." and "KAUSHI\SQLEXPRESS (16.0 RTM) KAUSHI\jamka (53) master 00:00:00 6 rows".



The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```

select * from brands2;

with cte as(
select *,case when brand1<brand2 then concat(brand1,brand2,year) else concat(brand2,brand1,year) end as new_id from brands2),
cte2 as(
select *,row_number() over(partition by new_id order by new_id) as rn from cte)
select brand1,brand2,year from cte2
where rn = 1 or (rn = 2 and custom1=custom3 and custom2=custom4)

```

Below the query editor, the "Results" pane displays the output of the query:

brand1	brand2	year
apple	samsung	2020
apple	samsung	2021
samsung	apple	2021
google	NULL	2020
oneplus	nothing	2020

The status bar at the bottom indicates "Query executed successfully." and "KAUSHI\SQLEXPRESS (16.0 RTM) KAUSHI\jamka (53) master 00:00:00 5 rows".