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NamasteSQL

100 Coding Problems

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100 DAY CODING PROBLEMS

🫠**Problem Statement:**

16 - LIFT OVERLOADED (PART 2)

You are given a table of list of lifts , their maximum capacity and people along with their weight and gender who wants to enter into it. You need to make sure maximum people enter into the lift without lift getting overloaded but you need to give preference to female passengers first.

For each lift find the comma separated list of people who can be accomodated. The comma separated list should have female first and then people in the order of their weight in increasing order, display the output in increasing order of id.

🚩 **Difficult Level : HARD**

Step - 2 : Identifying The Input Data And Expected

INPUT

lifts	
ID	CAPACITY_KG
1	300
2	350

lift_passengers			
PASSENGER_NAME	WEIGHT_KG	GENDER	LIFT_ID
Rahul	85	M	1
Adarsh	73	M	1
Riti	95	F	1
Dheeraj	80	M	1
Vimal	83	M	2
Neha	77	F	2
Priti	73	F	2
Himanshi	85	F	2

OUTPUT

LIFT_ID	PASSENGER_LIST
1	Riti,Adarsh,Dheeraj
2	Priti,Neha,Himanshi,Vimal

Step - 3 : Writing the sql query to solve the

```sql
WITH CTE
AS (
    SELECT *
        ,CASE WHEN gender = 'F' THEN 1 ELSE 2 END AS flag
    FROM lift_passengers LP
    JOIN lifts L ON LP.LIFT_ID = L.id
    )
    ,CTE1
AS (
    SELECT *
        ,sum(WEIGHT_KG) OVER ( PARTITION BY LIFT_ID ORDER BY gender ,WEIGHT_KG) AS cu_sum
    FROM CTE qualify cu_sum ≤ CAPACITY_KG
    ORDER BY LIFT_ID
        ,cu_sum
    )
SELECT LIFT_ID
    ,listagg(PASSENGER_NAME, ',') as passenger_list
FROM CTE1
GROUP BY LIFT_ID;
```

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