

Day65 - April 10th 2024

1. Started my day as usual
2. Solved this problem on leetcode **82. Remove Duplicates from Sorted List II**

Please find my sol doc here :

<https://docs.google.com/document/d/1nYNReehPNfegSHxObPuP0Wp-mGMaiuY1eFWz7Ybxy-c/edit?usp=sharing>

3. Started building an Azure end to end data pipeline on OnPerm data migration

The image shows a split-screen view of a YouTube video and a Google Docs document. The YouTube video, titled "Project Overview- Architecture", displays a diagram of an Azure data pipeline. The diagram illustrates data flow from an "On-prem SQL Server Database" through "ADF" (Azure Data Factory) into "Azure Data Lake Gen2", which is divided into "Bronze Layer", "Silver Layer", and "Gold Layer". The data then flows into "Azure Databricks" and finally to "Azure Synapse Analytics". The video is by "Mr. K Talks Tech" and has 191K views.

The Google Docs document, titled "4-10-2024_End to End Azure DE...", contains a list of steps for the data pipeline:

5. We'll be using Azure data lake gen2 to store the data ingested from ADF
6. Next we use azure databricks to perform transformations on our data
7. [Diagram showing the architecture]
8. And inside the ADL, we'll be having 3 layers..where bronze layer will act as source of truth(data never changes)..and next we'll apply some transformations and store the data in silver layer...at last we'll apply another set of transformations to even more clean the data and store them in gold layer
9. We use azure synapse analytics

4. Ended my day by solving multiple SQL questions from hackerrank

The screenshot shows the HackerRank interface for the 'Earnings of Employees' problem. The problem description states: "We define an employee's total earnings to be their monthly *salary* \times *months* worked, and the maximum total earnings to be the maximum total earnings for any employee in the **Employee** table. Write a query to find the maximum total earnings for all employees as well as the total number of employees who have maximum total earnings. Then print these values as 2 space-separated integers."

Input Format

The **Employee** table containing employee data for a company is described as follows:

Column	Type
employee_id	Integer
name	String
months	Integer
salary	Integer

where employee_id is an employee's ID number, name is their name, months is the total number of months they've been working for the company, and salary is their monthly salary.

Sample Input

employee_id	name	months	salary
12228	Rose	15	1968
33645	Annela	1	3443

The SQL query entered in the editor is:

```
1 /*
2 Enter your query here.
3 */
4 select (salary * months) as earnings, count(*) from employee group by 1 order by earnings desc limit 1;
```

The output shows "Congratulations!" and "Sample Test case 0" with the output "108064 7".

The screenshot shows the HackerRank interface for the 'Weather Observation Station 2' problem. The problem description states: "Query the following two values from the **STATION** table:

1. The sum of all values in LAT_N rounded to a scale of 2 decimal places.
2. The sum of all values in LONG_W rounded to a scale of 2 decimal places.

Input Format

The **STATION** table is described as follows:

Field	Type
ID	NUMBER
CITY	VARCHAR2(21)
STATE	VARCHAR2(2)
LAT_N	NUMBER
LONG_W	NUMBER

where LAT_N is the northern latitude and LONG_W is the western longitude.

Output Format

Your results must be in the form:

```
lat lon
```

where *lat* is the sum of all values in LAT_N and *lon* is the sum of all values in LONG_W. Both results must be rounded to a scale of 2 decimal places.

The SQL query entered in the editor is:

```
1 /*
2 Enter your query here.
3 */
4 SELECT ROUND(SUM(LAT_N), 2), ROUND(SUM(LONG_W), 2) FROM STATION
```

The output shows "Congratulations!" and "Sample Test case 0" with the output "42850.04 47381.48".