

Day86 - May 1st 2024

1. Started my day as usual
2. Solved **42. Trapping Rain Water** a medium problem on Leetcode

Media Player

QuickTime Player

File Edit View Window Help

leetcodem.com/problems/42-trapping-rain-water/

LeetCode

class Solution(object):  
def trap(self, height):  
return  
:type height: List[int]  
:type: int

Approach

0 1 0 2 1 0 1 3 2 1 1

19. Trapping Rain Water...

leetcodem.com/problems/tra...

Problem List

42. Trapping Rain Water

Python3 Auto

class Solution:  
def trap(self, height: List[int]) -> int:  
3

Given an array representing an elevation map where the index of the array represents the position of the terrain, compute the total amount of rain water that can be trapped.

Example 1:  
Input: height = [0,1,0,2,1,0]  
Output: 6  
Explanation: (black section) (blue section) are the two parts of the water that can be trapped.

Example 2:  
Input: height = [0,1,0,2,1,0,1,3,2,1,2,1]  
Output: 9

Media Player

Input

Output

Result

22. Trapping Rain Water - Approach 3 [Leetcode]-studyfever

16°C Clear

Search

Kaushik\_Ap3010E.pdf

Video\_Q2\_Problem\_Statement.p...

File | C:/Users/iamka/AppData/Local/Temp/0ecc35a1-3db3-498f-bb1a-ca1013ba9199\_Video\_Q2\_Scripts.zip/Video\_Q2\_Scripts/Video\_Q2\_Problem\_...

Draw

Ask Copilot

1 of 2

A ski resort company is planning to construct a new ski slope using a pre-existing network of mountain huts and trails between them. A new slope has to begin at one of the mountain huts, have a middle station at another hut connected with the first one by a direct trail, and end at the third mountain hut which is also connected by a direct trail to the second hut. The altitude of the three huts chosen for constructing the ski slope has to be strictly decreasing.

You are given two SQL tables, mountain\_huts and trails, with the following structure:

```
create table mountain_huts (
  id integer not null,
  name varchar(40) not null,
  altitude integer not null,
  unique(name),
  unique(id)
);

create table trails (
  hut1 integer not null,
  hut2 integer not null
);
```

insert into mountain\_huts values (1, 'Dakotat', 1900);  
 insert into mountain\_huts values (2, 'Nattisa', 2100);  
 insert into mountain\_huts values (3, 'Gajantut', 1600);  
 insert into mountain\_huts values (4, 'Rifat', 782);  
 insert into mountain\_huts values (5, 'Tupur', 1370);

insert into trails values (1, 3);  
 insert into trails values (3, 2);  
 insert into trails values (3, 5);  
 insert into trails values (4, 5);  
 insert into trails values (1, 5);

Each entry in the table trails represents a direct connection between huts with IDs hut1 and hut2. Note that all trails are bidirectional.

Create a query that finds all triplets(startpt,middlept,endpt) representing the mountain huts that may be used for construction of a ski slope.

Output returned by the query can be ordered in any way.

16°C Light rain

Search

ENG US

1:00 AM 5/3/2024

Pls find my sol doc here :

<https://docs.google.com/document/d/1b2BvPZYwEZbFrVVvsfEAwGgJX6W6i0BYDTSPqFeDF0E/edit?usp=sharing>

### 3. Ended my day by solving a hard SQL question Online

The screenshot shows the sql-practice.com website interface. The main area displays a SQL query that has been executed successfully. The query is as follows:

```
1 WITH cte AS(  
2 SELECT patient_id,CASE WHEN patient_id%2==0 THEN '10' ELSE '50' END AS cost_insurance,  
3 CASE WHEN patient_id%2==0 THEN 'Yes' ELSE 'No' END AS has_insurance FROM admissions)  
4 SELECT has_insurance,SUM(cost_insurance) FROM cte  
5 GROUP BY has_insurance
```

Below the query, a table shows the results of the execution:

has_insurance	sum(cost_insurance)
No	127800
Yes	25110

On the right side of the interface, a green banner indicates "You Got The Query Correct". Below this, there is a section titled "Solutions (1/4)" which provides a detailed explanation of the problem and the solution. The explanation states: "Each admission costs \$50 for patients without insurance, and \$10 for patients with insurance. All patients with an even patient\_id have insurance. Give each patient a 'Yes' if they have insurance, and a 'No' if they don't have insurance. Add up the admission\_total cost for each has\_insurance group."

The bottom of the screenshot shows the Windows taskbar with various application icons and the system clock indicating 11:03 PM on 5/1/2024.