

Problem List

DescriptionAcceptedEditorialSolutionsSubmissions

3061. Calculate Trapping Rain Water

Premium

HardTopics

SQL SchemaPandas Schema

Table: Heights

Column Name	Type
id	int
height	int

id is the primary key (column with unique values) for this table, and it is guaranteed to be in sequential order. Each row of this table contains an id and height.

Write a solution to calculate the amount of rainwater can be **trapped between the bars** in the landscape, considering that each bar has a **width** of 1 unit.

Return the result table in **any order**.

The result format is in the following example.

Example 1:

Input:

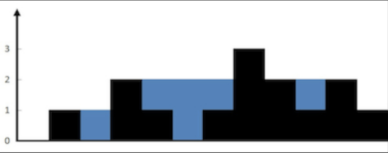
Heights table:

id	height
1	0
2	1
3	0
4	2
5	1
6	0
7	1
8	3
9	2
10	1
11	2
12	1

Output:

total_trapped_water
6

Explanation:



The elevation map depicted above (in the black section) is graphically represented with the x-axis denoting the id and the y-axis representing the heights [0,1,0,2,1,0,1,3,2,1,2,1]. In this scenario, 6 units of rainwater are trapped within the blue section.

Code

PandasAuto

```
1 import pandas as pd
2
3 def calculate_trapped_rain_water(heights: pd.DataFrame) -> pd.DataFrame:
4
5     df = heights.assign(ones = heights["height"].apply(lambda x: x*[1]))["ones"].apply(pd.Series)
6     df2 = (df.ffmpeg == 1) & (df.bffmpeg == 1)
7     return pd.DataFrame({"total_trapped_water": (((df == 1)^(df2 == 1)).sum().sum())})
```

SavedLn 7, Col 87

TestcaseTest Result

AcceptedRuntime: 229 ms

Case 1

Input

Heights =

id	height
1	0
2	1
3	0
4	2

Seen this question in a real interview before? 1/5

YesNo

Accepted 1,564/1.9K | Acceptance Rate 81.5%

Topics

Discussion (6)

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5	1
6	0