

Problem List < > ✎

Description Accepted Editorial Solutions Submissions

1699. Number of Calls Between Two Persons Premium

Solved ✓

Medium Topics Companies

SQL Schema > Pandas Schema >

Table: Calls:

Column Name	Type
from_id	int
to_id	int
duration	int

This table does not have a primary key (column with unique values), it may contain duplicates.

This table contains the duration of a phone call between from_id and to_id.

from_id != to_id

Write a solution to report the number of calls and the total call duration between each pair of distinct persons (person1, person2) where person1 < person2.

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

The result format is in the following example.

Example 1:

Input:

Calls table:

from_id	to_id	duration
1	2	59
2	1	11
1	3	20
3	4	100
3	4	200
3	4	200
4	3	499

Output:

person1	person2	call_count	total_duration
1	2	2	70
1	3	1	20
3	4	4	999

Explanation:

Users 1 and 2 had 2 calls and the total duration is 70 (59 + 11).
 Users 1 and 3 had 1 call and the total duration is 20.
 Users 3 and 4 had 4 calls and the total duration is 999 (100 + 200 + 200 + 499).

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

Yes No

Accepted 52,117/64.4K | Acceptance Rate 80.9%

Topics

Companies

Discussion (13)

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311 13 ⚡ 0 Online

Code

Pandas ✓ Auto

```

1 import pandas as pd
2
3 def number_of_calls(calls: pd.DataFrame) -> pd.DataFrame:
4
5     # Normalize pairs so that person1 < person2
6     calls['person1'] = calls[['from_id', 'to_id']].min(axis=1)
7     calls['person2'] = calls[['from_id', 'to_id']].max(axis=1)
8
9     # Aggregate: call count and total duration
10    result = (
11        calls.groupby(['person1', 'person2'], as_index=False)
12        .agg(
13            call_count=('duration', 'count'),
14            total_duration=('duration', 'sum')
15        )
16    )
17
18    return result

```

Saved

Testcase Test Result

Accepted Runtime: 315 ms

Case 1

Input

Calls =

from_id	to_id	duration
1	2	59
2	1	11
1	3	20