

Problem 2720: Popularity Percentage

Problem Information

Difficulty: **Hard**

Acceptance Rate: 52.86%

Paid Only: Yes

Tags: Database

Problem Description

Table: `Friends`

+-----+-----+ | Column Name | Type | +-----+-----+ | user1 | int | | user2 | int |
+-----+-----+ (user1, user2) is the primary key (combination of unique values) of this table. Each row contains information about friendship where user1 and user2 are friends.

Write a solution to find the popularity percentage for each user on Meta/Facebook. The popularity percentage is defined as the total number of friends the user has divided by the total number of users on the platform, then converted into a percentage by multiplying by 100, ****rounded to 2 decimal places****.

Return the result table ordered by `_`user1`_in**ascending** order.`

The result format is in the following example.

****Example 1.****

****Input:**** Friends table: +-----+-----+ | user1 | user2 | +-----+-----+ | 2 | 1 | | 1 | 3 | | 4 | 1 | | 1 | 5 | | 1 | 6 | | 2 | 6 | | 7 | 2 | | 8 | 3 | | 3 | 9 | +-----+-----+ ****Output:****
+-----+-----+ | user1 | percentage_popularity | +-----+-----+ | 1 | 55.56 | | 2 | 33.33 | | 3 | 33.33 | | 4 | 11.11 | | 5 | 11.11 | | 6 | 22.22 | | 7 | 11.11 | | 8 | 11.11 | | 9 | 11.11 | +-----+-----+ ****Explanation:**** There are total 9 users on the platform. - User "1" has friendships with 2, 3, 4, 5 and 6. Therefore, the percentage popularity for user 1 would be calculated as $(5/9) * 100 = 55.56$. - User "2" has friendships with 1, 6 and 7. Therefore, the percentage popularity for user 2 would be calculated as $(3/9) * 100 = 33.33$. - User "3" has friendships with 1, 8 and 9. Therefore, the percentage popularity for user 3 would

be calculated as $(3/9) * 100 = 33.33$. - User "4" has friendships with 1. Therefore, the percentage popularity for user 4 would be calculated as $(1/9) * 100 = 11.11$. - User "5" has friendships with 1. Therefore, the percentage popularity for user 5 would be calculated as $(1/9) * 100 = 11.11$. - User "6" has friendships with 1 and 2. Therefore, the percentage popularity for user 6 would be calculated as $(2/9) * 100 = 22.22$. - User "7" has friendships with 2. Therefore, the percentage popularity for user 7 would be calculated as $(1/9) * 100 = 11.11$. - User "8" has friendships with 3. Therefore, the percentage popularity for user 8 would be calculated as $(1/9) * 100 = 11.11$. - User "9" has friendships with 3. Therefore, the percentage popularity for user 9 would be calculated as $(1/9) * 100 = 11.11$. user1 is sorted in ascending order.

Code Snippets

MySQL:

```
# Write your MySQL query statement below
```

MS SQL Server:

```
/* Write your T-SQL query statement below */
```

PostgreSQL:

```
-- Write your PostgreSQL query statement below
```