Problem 1731: The Number of Employees Which Report to Each Employee

Problem Information

Difficulty: Easy
Acceptance Rate: 0.00%
Paid Only: No

Problem Description

Table:

Employees

+-------------+----------+ | Column Name | Type | +-------------+----------+ | employee_id | int | | name | varchar | | reports_to | int | | age | int | +-------------+----------+ employee_id is the column with unique values for this table. This table contains information about the employees and the id of the manager they report to. Some employees do not report to anyone (reports_to is null).

For this problem, we will consider a

manager

an employee who has at least 1 other employee reporting to them.

Write a solution to report the ids and the names of all

managers

, the number of employees who report

directly

to them, and the average age of the reports rounded to the nearest integer.

Return the result table ordered by

employee_id

.

The result format is in the following example.

Example 1:

Input:

Employees table: +-------------+---------+------------+-----+ | employee_id | name | reports_to | age | +-------------+---------+------------+-----+ | 9 | Hercy | null | 43 | | 6 | Alice | 9 | 41 | | 4 | Bob | 9 | 36 | | 2 | Winston | null | 37 | +-------------+---------+------------+-----+

Output:

+-------------+-------+---------------+-------------+ | employee_id | name | reports_count | average_age | +-------------+-------+---------------+-------------+ | 9 | Hercy | 2 | 39 | +-------------+-------+---------------+-------------+

Explanation:

Hercy has 2 people report directly to him, Alice and Bob. Their average age is (41+36)/2 = 38.5, which is 39 after rounding it to the nearest integer.

Example 2:

Input:

Employees table: +-------------+---------+------------+-----+ | employee_id | name | reports_to | age | |-------------|---------|------------|-----| | 1 | Michael | null | 45 | | 2 | Alice | 1 | 38 | | 3 | Bob | 1 | 42 | | 4 | Charlie | 2 | 34 | | 5 | David | 2 | 40 | | 6 | Eve | 3 | 37 | | 7 | Frank | null | 50 | | 8 | Grace | null | 48 | +-------------+---------+------------+-----+

Output:

+-------------+---------+---------------+-------------+ | employee_id | name | reports_count | average_age | | ----------- | ------- | ------------- | ----------- | | 1 | Michael | 2 | 40 | | 2 | Alice | 2 | 37 | | 3 | Bob | 1 | 37 | +-------------+---------+---------------+-------------+

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
```

Oracle:

```
/* Write your PL/SQL query statement below */
```

Pandas:

```
import pandas as pd

def count_employees(employees: pd.DataFrame) -> pd.DataFrame:
```

Solutions

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