Problem 569: Median Employee Salary

Problem Information

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

Problem Description

Table:

Employee

+----------+---------+ | Column Name | Type | +----------+---------+ | id | int | | company | varchar | | salary | int | +----------+---------+ id is the primary key (column with unique values) for this table. Each row of this table indicates the company and the salary of one employee.

Write a solution to find the rows that contain the median salary of each company. While calculating the median, when you sort the salaries of the company, break the ties by

id

.

Return the result table in

any order

.

The result format is in the following example.

Example 1:

Input:

Employee table: +----+---------+--------+ | id | company | salary | +----+---------+--------+ | 1 | A | 2341 | | 2 | A | 341 | | 3 | A | 15 | | 4 | A | 15314 | | 5 | A | 451 | | 6 | A | 513 | | 7 | B | 15 | | 8 | B | 13 | | 9 | B | 1154 | | 10 | B | 1345 | | 11 | B | 1221 | | 12 | B | 234 | | 13 | C | 2345 | | 14 | C | 2645 | | 15 | C | 2645 | | 16 | C | 2652 | | 17 | C | 65 | +----+---------+--------+

Output:

+----+---------+--------+ | id | company | salary | +----+---------+--------+ | 5 | A | 451 | | 6 | A | 513 | | 12 | B | 234 | | 9 | B | 1154 | | 14 | C | 2645 | +----+---------+--------+

Explanation:

For company A, the rows sorted are as follows: +----+---------+--------+ | id | company | salary | +----+---------+--------+ | 3 | A | 15 | | 2 | A | 341 | | 5 | A | 451 | <-- median | 6 | A | 513 | <-- median | 1 | A | 2341 | | 4 | A | 15314 | +----+---------+--------+ For company B, the rows sorted are as follows: +----+---------+--------+ | id | company | salary | +----+---------+--------+ | 8 | B | 13 | | 7 | B | 15 | | 12 | B | 234 | <-- median | 11 | B | 1221 | <-- median | 9 | B | 1154 | | 10 | B | 1345 | +----+---------+--------+ For company C, the rows sorted are as follows: +----+---------+--------+ | id | company | salary | +----+---------+--------+ | 17 | C | 65 | | 13 | C | 2345 | | 14 | C | 2645 | <-- median | 15 | C | 2645 | | 16 | C | 2652 | +----+---------+--------+

Follow up:

Could you solve it without using any built-in or window functions?

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 median_employee_salary(employee: pd.DataFrame) -> pd.DataFrame:
```

Solutions

MySQL Solution:

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