Problem 2820: Election Results

Problem Information

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

Problem Description

Table:

Votes

+-------------+---------+ | Column Name | Type | +-------------+---------+ | voter | varchar | | candidate | varchar | +-------------+---------+ (voter, candidate) is the primary key (combination of unique values) for this table. Each row of this table contains name of the voter and their candidate.

The election is conducted in a city where everyone can vote for

one or more

candidates or choose

not

to vote. Each person has

1

vote

so if they vote for multiple candidates, their vote gets equally split across them. For example, if a person votes for

2

candidates, these candidates receive an equivalent of

0.5

votes each.

Write a solution to find

candidate

who got the most votes and won the election. Output the name of the

candidate

or If multiple candidates have an

equal number

of votes, display the names of all of them.

Return

the result table ordered

by

candidate

in

ascending

order.

The result format is in the following example.

Example 1:

Input:

Votes table: +----------+-----------+ | voter | candidate | +----------+-----------+ | Kathy | null | | Charles | Ryan | | Charles | Christine | | Charles | Kathy | | Benjamin | Christine | | Anthony | Ryan | | Edward | Ryan | | Terry | null | | Evelyn | Kathy | | Arthur | Christine | +----------+-----------+

Output:

+-----------+ | candidate | +-----------+ | Christine | | Ryan | +-----------+

Explanation:

- Kathy and Terry opted not to participate in voting, resulting in their votes being recorded as 0. Charles distributed his vote among three candidates, equating to 0.33 for each candidate. On the other hand, Benjamin, Arthur, Anthony, Edward, and Evelyn each cast their votes for a single candidate. - Collectively, Candidate Ryan and Christine amassed a total of 2.33 votes, while Kathy received a combined total of 1.33 votes. Since Ryan and Christine received an equal number of votes, we will display their names 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
```

Oracle:

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

Pandas:

```
import pandas as pd

def get_election_results(votes: pd.DataFrame) -> pd.DataFrame:
```

Solutions

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