Problem 1709: Biggest Window Between Visits

Problem Information

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

Problem Description

Table:

UserVisits

+-------------+------+ | Column Name | Type | +-------------+------+ | user_id | int | | visit_date | date | +-------------+------+ This table does not have a primary key, it might contain duplicate rows. This table contains logs of the dates that users visited a certain retailer.

Assume today's date is

'2021-1-1'

.

Write a solution that will, for each

user_id

, find out the largest

window

of days between each visit and the one right after it (or today if you are considering the last visit).

Return the result table ordered by

user_id

.

The query result format is in the following example.

Example 1:

Input:

UserVisits table: +--------+-----------+ | user_id | visit_date | +--------+-----------+ | 1 | 2020-11-28 | | 1 | 2020-10-20 | | 1 | 2020-12-3 | | 2 | 2020-10-5 | | 2 | 2020-12-9 | | 3 | 2020-11-11 | +--------+-----------+

Output:

+--------+--------------+ | user_id | biggest_window| +--------+--------------+ | 1 | 39 | | 2 | 65 | | 3 | 51 | +--------+--------------+

Explanation:

For the first user, the windows in question are between dates: - 2020-10-20 and 2020-11-28 with a total of 39 days. - 2020-11-28 and 2020-12-3 with a total of 5 days. - 2020-12-3 and 2021-1-1 with a total of 29 days. Making the biggest window the one with 39 days. For the second user, the windows in question are between dates: - 2020-10-5 and 2020-12-9 with a total of 65 days. - 2020-12-9 and 2021-1-1 with a total of 23 days. Making the biggest window the one with 65 days. For the third user, the only window in question is between dates 2020-11-11 and 2021-1-1 with a total of 51 days.

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 biggest_window(user_visits: pd.DataFrame) -> pd.DataFrame:
```

Solutions

MySQL Solution:

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