

Problem 1158: Market Analysis I

Problem Information

Difficulty: Medium

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

Table:

Users

+-----+-----+ | Column Name | Type | +-----+-----+ | user_id | int ||
join_date | date | | favorite_brand | varchar | +-----+-----+ user_id is the primary key
(column with unique values) of this table. This table has the info of the users of an online
shopping website where users can sell and buy items.

Table:

Orders

+-----+-----+ | Column Name | Type | +-----+-----+ | order_id | int ||
order_date | date | | item_id | int | | buyer_id | int | | seller_id | int | +-----+-----+
order_id is the primary key (column with unique values) of this table. item_id is a foreign key
(reference column) to the Items table. buyer_id and seller_id are foreign keys to the Users
table.

Table:

Items

+-----+-----+ | Column Name | Type | +-----+-----+ | item_id | int ||
item_brand | varchar | +-----+-----+ item_id is the primary key (column with unique
values) of this table.

Write a solution to find for each user, the join date and the number of orders they made as a buyer in

2019

Return the result table in

any order

The result format is in the following example.

Example 1:

Input:

Users table: +-----+-----+-----+ | user_id | join_date | favorite_brand |
+-----+-----+-----+ | 1 | 2018-01-01 | Lenovo | | 2 | 2018-02-09 | Samsung || 3 |
2018-01-19 | LG | | 4 | 2018-05-21 | HP | +-----+-----+-----+ Orders table:
+-----+-----+-----+-----+ | order_id | order_date | item_id | buyer_id |
seller_id | +-----+-----+-----+-----+ | 1 | 2019-08-01 | 4 | 1 | 2 || 2 |
2018-08-02 | 2 | 1 | 3 || 3 | 2019-08-03 | 3 | 2 | 3 || 4 | 2018-08-04 | 1 | 4 | 2 || 5 | 2018-08-04 |
1 | 3 | 4 || 6 | 2019-08-05 | 2 | 2 | 4 | +-----+-----+-----+-----+ Items
table: +-----+-----+ | item_id | item_brand | +-----+-----+ | 1 | Samsung || 2 |
Lenovo || 3 | LG || 4 | HP | +-----+-----+

Output:

+-----+-----+-----+ | buyer_id | join_date | orders_in_2019 |
+-----+-----+-----+ | 1 | 2018-01-01 | 1 || 2 | 2018-02-09 | 2 || 3 | 2018-01-19 |
0 || 4 | 2018-05-21 | 0 | +-----+-----+-----+

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 market_analysis(users: pd.DataFrame, orders: pd.DataFrame, items: pd.DataFrame) -> pd.DataFrame:
```

Solutions

MySQL Solution:

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