Problem 1398: Customers Who Bought Products A and B but Not C

Problem Information

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

Problem Description

Table:

Customers

+---------------------+---------+ | Column Name | Type | +---------------------+---------+ | customer_id | int | | customer_name | varchar | +---------------------+---------+ customer_id is the column with unique values for this table. customer_name is the name of the customer.

Table:

Orders

+---------------+---------+ | Column Name | Type | +---------------+---------+ | order_id | int | | customer_id | int | | product_name | varchar | +---------------+---------+ order_id is the column with unique values for this table. customer_id is the id of the customer who bought the product "product_name".

Write a solution to report the customer_id and customer_name of customers who bought products

"A"

,

"B"

but did not buy the product

"C"

since we want to recommend them to purchase this product.

Return the result table

ordered

by

customer_id

.

The result format is in the following example.

Example 1:

Input:

Customers table: +-------------+---------------+ | customer_id | customer_name | +-------------+---------------+ | 1 | Daniel | | 2 | Diana | | 3 | Elizabeth | | 4 | Jhon | +-------------+---------------+ Orders table: +------------+--------------+---------------+ | order_id | customer_id | product_name | +------------+--------------+---------------+ | 10 | 1 | A | | 20 | 1 | B | | 30 | 1 | D | | 40 | 1 | C | | 50 | 2 | A | | 60 | 3 | A | | 70 | 3 | B | | 80 | 3 | D | | 90 | 4 | C | +------------+--------------+---------------+

Output:

+-------------+---------------+ | customer_id | customer_name | +-------------+---------------+ | 3 | Elizabeth | +-------------+---------------+

Explanation:

Only the customer_id with id 3 bought the product A and B but not the product C.

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 find_customers(customers: pd.DataFrame, orders: pd.DataFrame) ->
pd.DataFrame:
```

Solutions

MySQL Solution:

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