Problem 1070: Product Sales Analysis III

Problem Information

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

Problem Description

Table:

Sales

+-------------+-------+ | Column Name | Type | +-------------+-------+ | sale_id | int | | product_id | int | | year | int | | quantity | int | | price | int | +-------------+-------+ (sale_id, year) is the primary key (combination of columns with unique values) of this table. Each row records a sale of a product in a given year. A product may have multiple sales entries in the same year. Note that the per-unit price.

Write a solution to find all sales that occurred in the

first year

each product was sold.

For each

product_id

, identify the earliest

year

it appears in the

Sales

table.

Return

all

sales entries for that product in that year.

Return a table with the following columns:

product_id

,

first_year

,

quantity,

and

price

.

Return the result in any order.

Example 1:

Input:

Sales table: +---------+------------+------+----------+-------+ | sale_id | product_id | year | quantity | price | +---------+------------+------+----------+-------+ | 1 | 100 | 2008 | 10 | 5000 | | 2 | 100 | 2009 | 12 | 5000 | | 7 | 200 | 2011 | 15 | 9000 | +---------+------------+------+----------+-------+

Output:

+------------+------------+----------+-------+ | product_id | first_year | quantity | price | +------------+------------+----------+-------+ | 100 | 2008 | 10 | 5000 | | 200 | 2011 | 15 | 9000 | +------------+------------+----------+-------+

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 sales_analysis(sales: pd.DataFrame) -> pd.DataFrame:
```

Solutions

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