Problem 1251: Average Selling Price

Problem Information

Difficulty: Easy
Acceptance Rate: 36.95%
Paid Only: No
Tags: Database

Problem Description

Table: `Prices`

+---------------+---------+ | Column Name | Type | +---------------+---------+ | product_id | int | | start_date | date | | end_date | date | | price | int | +---------------+---------+ (product_id, start_date, end_date) is the primary key (combination of columns with unique values) for this table. Each row of this table indicates the price of the product_id in the period from start_date to end_date. For each product_id there will be no two overlapping periods. That means there will be no two intersecting periods for the same product_id.

Table: `UnitsSold`

+---------------+---------+ | Column Name | Type | +---------------+---------+ | product_id | int | | purchase_date | date | | units | int | +---------------+---------+ This table may contain duplicate rows. Each row of this table indicates the date, units, and product_id of each product sold.

Write a solution to find the average selling price for each product. `average_price` should be **rounded to 2 decimal places**. If a product does not have any sold units, its average selling price is assumed to be 0.

Return the result table in **any order**.

The result format is in the following example.

Example 1:

Input: Prices table: +------------+------------+------------+--------+ | product_id | start_date | end_date | price | +------------+------------+------------+--------+ | 1 | 2019-02-17 | 2019-02-28 | 5 | | 1 | 2019-03-01 | 2019-03-22 | 20 | | 2 | 2019-02-01 | 2019-02-20 | 15 | | 2 | 2019-02-21 | 2019-03-31 | 30 | +------------+------------+------------+--------+ UnitsSold table: +------------+---------------+-------+ | product_id | purchase_date | units | +------------+---------------+-------+ | 1 | 2019-02-25 | 100 | | 1 | 2019-03-01 | 15 | | 2 | 2019-02-10 | 200 | | 2 | 2019-03-22 | 30 | +------------+---------------+-------+ **Output:** +------------+---------------+ | product_id | average_price | +------------+---------------+ | 1 | 6.96 | | 2 | 16.96 | +------------+---------------+ **Explanation:** Average selling price = Total Price of Product / Number of products sold. Average selling price for product 1 = ((100 * 5) + (15 * 20)) / 115 = 6.96 Average selling price for product 2 = ((200 * 15) + (30 * 30)) / 230 = 16.96

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
```