1251.Average Selling Price

13 July 2025 10:40 PM

```
+---------------+---------+
| 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.

```
+---------------+---------+
| 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.

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    |
+------------+---------------+-------+
```

```
+------------+--------------+
| product_id | average_price |
+------------+--------------+
| 1          | 6.96         |
| 2          | 16.96        |
+------------+--------------+
```

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

From <https://leetcode.com/problems/average-selling-price/description/?envType=study-plan-v2&envId=top-sql-50>

Code

MySQL Auto

```mysql
SELECT
    P.PRODUCT_ID,
    IFNULL(
    ROUND(SUM(P.price * U.units) * 1.0 / SUM(U.units), 2),
    0
  ) AS average_price
FROM PRICES P
LEFT JOIN
    UNITSSOLD U
ON
    P.PRODUCT_ID = U.PRODUCT_ID
AND
    U.PURCHASE_DATE BETWEEN P.START_DATE AND P.END_DATE
GROUP BY
    P.PRODUCT_ID
```

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