1321. Restaurant Growth

Table: Customer

```
+---------------+---------+
| Column Name   | Type    |
+---------------+---------+
| customer_id   | int     |
| name          | varchar |
| visited_on    | date    |
| amount        | int     |
+---------------+---------+
```

In SQL,(customer_id, visited_on) is the primary key for this table.
This table contains data about customer transactions in a restaurant.
visited_on is the date on which the customer with ID (customer_id) has visited the restaurant.
amount is the total paid by a customer.

You are the restaurant owner and you want to analyze a possible expansion (there will be at least one customer every day).
Compute the moving average of how much the customer paid in a seven days window (i.e., current day + 6 days before). average_amount should be **rounded to two decimal places**.
Return the result table ordered by visited_on **in ascending order**.
The result format is in the following example.

Example 1:
Input:
Customer table:

```
+-------------+--------------+--------------+-------------+
| customer_id | name         | visited_on   | amount      |
+-------------+--------------+--------------+-------------+
| 1           | Jhon         | 2019-01-01   | 100         |
| 2           | Daniel       | 2019-01-02   | 110         |
| 3           | Jade         | 2019-01-03   | 120         |
| 4           | Khaled       | 2019-01-04   | 130         |
| 5           | Winston      | 2019-01-05   | 110         |
| 6           | Elvis        | 2019-01-06   | 140         |
| 7           | Anna         | 2019-01-07   | 150         |
| 8           | Maria        | 2019-01-08   | 80          |
| 9           | Jaze         | 2019-01-09   | 110         |
| 1           | Jhon         | 2019-01-10   | 130         |
| 3           | Jade         | 2019-01-10   | 150         |
+-------------+--------------+--------------+-------------+
```

Output:

```
+--------------+--------------+----------------+
| visited_on   | amount       | average_amount |
+--------------+--------------+----------------+
| 2019-01-07   | 860          | 122.86         |
| 2019-01-08   | 840          | 120            |
| 2019-01-09   | 840          | 120            |
| 2019-01-10   | 1000         | 142.86         |
+--------------+--------------+----------------+
```

Explanation:

1st moving average from 2019-01-01 to 2019-01-07 has an average_amount of (100 + 110 + 120 + 130 + 110 + 140 + 150)/7 = 122.86

2nd moving average from 2019-01-02 to 2019-01-08 has an average_amount of (110 + 120 + 130 + 110 + 140 + 150 + 80)/7 = 120

3rd moving average from 2019-01-03 to 2019-01-09 has an average_amount of (120 + 130 + 110 + 140 + 150 + 80 + 110)/7 = 120

4th moving average from 2019-01-04 to 2019-01-10 has an average_amount of (130 + 110 + 140 + 150 + 80 + 110 + 130 + 150)/7 = 142.86

```
# Write your MySQL query statement below
SELECT
    visited_on,
    (
        SELECT SUM(amount)
        FROM customer
        WHERE visited_on BETWEEN DATE_SUB(c.visited_on, INTERVAL 6 DAY)
AND c.visited_on
    ) AS amount,
    ROUND(
        (
            SELECT SUM(amount) / 7
            FROM customer
            WHERE visited_on BETWEEN DATE_SUB(c.visited_on, INTERVAL 6
DAY) AND c.visited_on
        ),
        2
    ) AS average_amount
FROM customer c
WHERE visited_on >= (
    SELECT DATE_ADD(MIN(visited_on), INTERVAL 6 DAY)
    FROM customer
)
GROUP BY visited_on
ORDER BY visited_on;
```