1831. Maximum Transaction Each Day

Description

Table: `Transactions`

```
+-----------------+----------+
| Column Name     | Type     |
+-----------------+----------+
| transaction_id  | int      |
| day             | datetime |
| amount          | int      |
+-----------------+----------+
transaction_id is the column with unique values for this table.
Each row contains information about one transaction.
```

Write a solution to report the IDs of the transactions with the **maximum** `amount` on their respective day. If in one day there are multiple such transactions, return all of them.

Return the result table **ordered by** `transaction_id` **in ascending order**.

The result format is in the following example.

Example 1:

```
Input:
Transactions table:
+-----------------+---------------------+--------+
| transaction_id  | day                 | amount |
+-----------------+---------------------+--------+
| 8               | 2021-4-3 15:57:28   | 57     |
| 9               | 2021-4-28 08:47:25  | 21     |
| 1               | 2021-4-29 13:28:30  | 58     |
| 5               | 2021-4-28 16:39:59  | 40     |
| 6               | 2021-4-29 23:39:28  | 58     |
+-----------------+---------------------+--------+
Output:
+-----------------+
| transaction_id  |
+-----------------+
| 1               |
| 5               |
| 6               |
| 8               |
+-----------------+
Explanation:
"2021-4-3"  --> We have one transaction with ID 8, so we add 8 to the result table.
"2021-4-28" --> We have two transactions with IDs 5 and 9. The transaction with ID 5 has an amount of 40, while the transaction with ID 9 has an amount of 21. We only include the transaction with ID 5 as it has the maximum amount this day.
"2021-4-29" --> We have two transactions with IDs 1 and 6. Both transactions have the same amount of 58, so we include both in the result table.
We order the result table by transaction_id after collecting these IDs.
```

Follow up: Could you solve it without using the `MAX()` function?