Problem 1204: Last Person to Fit in the Bus

Problem Information

Difficulty: Medium
Acceptance Rate: 68.82%
Paid Only: No
Tags: Database

Problem Description

Table: `Queue`

+-------------+---------+ | Column Name | Type | +-------------+---------+ | person_id | int | | person_name | varchar | | weight | int | | turn | int | +-------------+---------+ person_id column contains unique values. This table has the information about all people waiting for a bus. The person_id and turn columns will contain all numbers from 1 to n, where n is the number of rows in the table. turn determines the order of which the people will board the bus, where turn=1 denotes the first person to board and turn=n denotes the last person to board. weight is the weight of the person in kilograms.

There is a queue of people waiting to board a bus. However, the bus has a weight limit of `1000`**kilograms** , so there may be some people who cannot board.

Write a solution to find the `person_name` of the **last person** that can fit on the bus without exceeding the weight limit. The test cases are generated such that the first person does not exceed the weight limit.

Note that _only one_ person can board the bus at any given turn.

The result format is in the following example.

Example 1:

Input: Queue table: +-----------+-------------+--------+------+ | person_id | person_name | weight | turn | +-----------+-------------+--------+------+ | 5 | Alice | 250 | 1 | | 4 | Bob | 175 | 5 | | 3 | Alex | 350 | 2 | | 6 | John Cena | 400 | 3 | | 1 | Winston | 500 | 6 | | 2 | Marie | 200 | 4 |

+-----------+-------------+--------+------+ **Output:** +-------------+ | person_name | +-------------+ | John Cena | +-------------+ **Explanation:** The folowing table is ordered by the turn for simplicity. +------+----+-----------+--------+--------------+ | Turn | ID | Name | Weight | Total Weight | +------+----+-----------+--------+--------------+ | 1 | 5 | Alice | 250 | 250 | | 2 | 3 | Alex | 350 | 600 | | 3 | 6 | John Cena | 400 | 1000 | (last person to board) | 4 | 2 | Marie | 200 | 1200 | (cannot board) | 5 | 4 | Bob | 175 | ___ | | 6 | 1 | Winston | 500 | ___ | +------+----+-----------+--------+--------------+

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
```