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1801. Number of Orders in the Backlog

My Submissions (/contest/weekly-contest-233/problems/number-of-orders-in-the-backlog/submissions/) Back to Contest (/contest/weekly-contest-233/)

You are given a 2D integer array orders, where each orders $[i] = [price_i, amount_i, orderType_i]$ denotes that $amount_i$ orders have been placed of type orderType_i at the price $price_i$. The orderType_i is:

- 0 if it is a batch of buy orders, or
- 1 if it is a batch of sell orders.

Note that orders [i] represents a batch of amount_i independent orders with the same price and order type. All orders represented by orders [i] will be placed before all orders represented by orders [i+1] for all valid i.

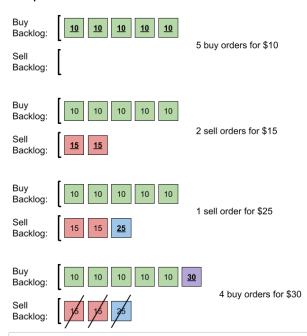
There is a **backlog** that consists of orders that have not been executed. The backlog is initially empty. When an order is placed, the following happens:

User Accepted:	2251
User Tried:	3062
Total Accepted:	2294
Total Submissions:	5795
Difficulty:	Medium

- If the order is a buy order, you look at the sell order with the smallest price in the backlog. If that sell order's price is smaller than or equal to the current buy order's price, they will match and be executed, and that sell order will be removed from the backlog. Else, the buy order is added to the backlog.
- Vice versa, if the order is a sell order, you look at the buy order with the largest price in the backlog. If that buy order's price is larger than or equal to the current sell order's price, they will match and be executed, and that buy order will be removed from the backlog. Else, the sell order is added to the backlog.

Return the total amount of orders in the backlog after placing all the orders from the input. Since this number can be large, return it modulo 109 + 7.

Example 1:



Input: orders = [[10,5,0],[15,2,1],[25,1,1],[30,4,0]]

Output: 6

Explanation: Here is what happens with the orders:

- 5 orders of type buy with price 10 are placed. There are no sell orders, so the 5 orders are added to the backlog.
- 2 orders of type sell with price 15 are placed. There are no buy orders with prices larger than or equal to 15, so the 2 orde
- 1 order of type sell with price 25 is placed. There are no buy orders with prices larger than or equal to 25 in the backlog,
- 4 orders of type buy with price 30 are placed. The first 2 orders are matched with the 2 sell orders of the least price, whic Finally, the backlog has 5 buy orders with price 10, and 1 buy order with price 30. So the total number of orders in the backlo

Example 2: