

2718. Sum of Matrix After Queries

Description

You are given an integer `n` and a **0-indexed 2D array** `queries` where `queries[i] = [typei, indexi, vali]`.

Initially, there is a **0-indexed** `n x n` matrix filled with `0`'s. For each query, you must apply one of the following changes:

- if `typei == 0`, set the values in the row with `indexi` to `vali`, overwriting any previous values.
- if `typei == 1`, set the values in the column with `indexi` to `vali`, overwriting any previous values.

Return *the sum of integers in the matrix after all queries are applied*.

Example 1:

Initial Matrix			Query 0			Query 1			Query 2			Query 3		
0	0	0	1	1	1	1	1	2	1	1	2	4	1	2
0	0	0	0	0	0	0	0	2	0	0	2	4	0	2
0	0	0	0	0	0	0	0	2	3	3	3	4	3	3

Input: `n = 3, queries = [[0,0,1],[1,2,2],[0,2,3],[1,0,4]]`
Output: `23`
Explanation: The image above describes the matrix after each query. The sum of the matrix after all queries are applied is 23.

Example 2:

Initial Matrix			Query 0			Query 1			Query 2			Query 3		
0	0	0	4	4	4	4	4	4	1	4	4	1	4	4
0	0	0	0	0	0	2	2	2	1	2	2	1	2	2
0	0	0	0	0	0	0	0	0	1	0	0	3	3	3

Query 4

1	4	1
1	2	1
3	3	1

Input: `n = 3, queries = [[0,0,4],[0,1,2],[1,0,1],[0,2,3],[1,2,1]]`
Output: `17`
Explanation: The image above describes the matrix after each query. The sum of the matrix after all queries are applied is 17.

Constraints:

- `1 <= n <= 104`
- `1 <= queries.length <= 5 * 104`
- `queries[i].length == 3`
- `0 <= typei <= 1`
- `0 <= indexi < n`
- `0 <= vali <= 105`

