Leet Code

Day-41 Q-01 Set Matrix Zeroes

Given an $m \times n$ matrix. If an element is **0**, set its entire row and column to **0**. Do it **in-place**.

Follow up:

- A straight forward solution using O(mn) space is probably a bad idea.
- A simple improvement uses O(m + n) space, but still not the best solution.
- Could you devise a constant space solution?

Example 1:

1	1	1	1	0	1
1	0	1	0	0	0
1	1	1	1	0	1

Input: matrix = [[1,1,1],[1,0,1],[1,1,1]]

Output: [[1,0,1],[0,0,0],[1,0,1]]

Example 2:

0	1	2	0	0	0	0
3	4	5	2	0	4	5
1	3	1	5	0	3	1

Input: matrix = [[0,1,2,0],[3,4,5,2],[1,3,1,5]]

Output: [[0,0,0,0],[0,4,5,0],[0,3,1,0]]

Constraints:

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• m == matrix.length
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- n == matrix[0].length
- $1 \le m$, $n \le 200$
- $-2^{31} \le \text{matrix[i][j]} \le 2^{31} 1$