

542. 01 Matrix

Difficulty : Medium

<https://leetcode.com/problems/01-matrix>

Given an $m \times n$ binary matrix `mat`, return *the distance of the nearest 0 for each cell*.

The distance between two adjacent cells is 1.

Example 1:

0	0	0
0	1	0
0	0	0

Input: `mat = [[0,0,0],[0,1,0],[0,0,0]]`

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

Example 2:

0	0	0
0	1	0
1	1	1

Input: `mat = [[0,0,0],[0,1,0],[1,1,1]]`

Output: `[[0,0,0],[0,1,0],[1,2,1]]`

Constraints:

- $m == \text{mat.length}$
- $n == \text{mat}[i].\text{length}$
- $1 \leq m, n \leq 10^4$
- $1 \leq m * n \leq 10^4$
- `mat[i][j]` is either 0 or 1.
- There is at least one 0 in `mat`.