2658. Maximum Number of Fish in a Grid

Solved ●

Medium Topics Companies Hint

You are given a **0-indexed** 2D matrix `grid` of size `m x n`, where `(r, c)` represents:

- A **land** cell if `grid[r][c] = 0`, or
- A **water** cell containing `grid[r][c]` fish, if `grid[r][c] > 0`.

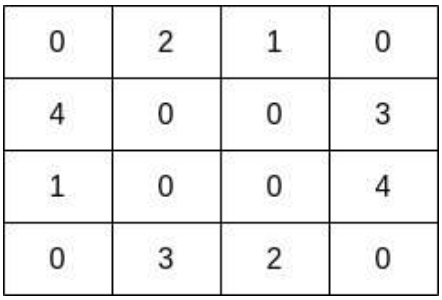
A fisher can start at any **water** cell `(r, c)` and can do the following operations any number of times:

- Catch all the fish at cell `(r, c)`, or
- Move to any adjacent **water** cell.

Return *the **maximum** number of fish the fisher can catch if he chooses his starting cell optimally, or* `0` if no water cell exists.

An **adjacent** cell of the cell `(r, c)`, is one of the cells `(r, c + 1)`, `(r, c - 1)`, `(r + 1, c)` or `(r - 1, c)` if it exists.

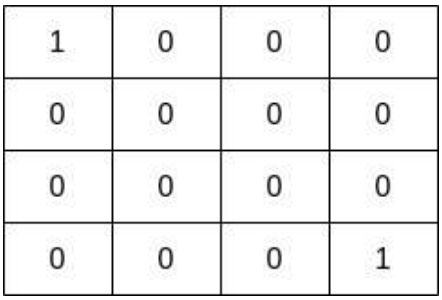
Example 1:



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

> **Input:** grid = [[0,2,1,0],[4,0,0,3],[1,0,0,4],[0,3,2,0]]
> **Output:** 7
> **Explanation:** The fisher can start at cell `(1,3)` and collect 3 fish, then move to cell `(2,3)` and collect 4 fish.

Example 2:



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

> **Input:** grid = [[1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,1]]
> **Output:** 1
> **Explanation:** The fisher can start at cells (0,0) or (3,3) and collect a single fish.

Constraints:

- `m == grid.length`
- `n == grid[i].length`
- `1 <= m, n <= 10`
- `0 <= grid[i][j] <= 10`

Seen this question in a real interview before? 1/4

Yes No

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Hint 1

Hint 2

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