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Day 5

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Description

Solution

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i{}⌕⌕⌕⌕⌕

1992. Find All Groups of Farmland

Medium👍92👏5❤️Add to List🔖Share

You are given a **0-indexed** $m \times n$ binary matrix `land` where a `0` represents a hectare of forested land and a `1` represents a hectare of farmland.

To keep the land organized, there are designated rectangular areas of hectares that consist **entirely** of farmland. These rectangular areas are called **groups**. No two groups are adjacent, meaning farmland in one group is **not** four-directionally adjacent to another farmland in a different group.

`land` can be represented by a coordinate system where the top left corner of `land` is $(0, 0)$ and the bottom right corner of `land` is $(m-1, n-1)$. Find the coordinates of the top left and bottom right corner of each **group** of farmland. A **group** of farmland with a top left corner at (r_1, c_1) and a bottom right corner at (r_2, c_2) is represented by the 4-length array $[r_1, c_1, r_2, c_2]$.

Return a 2D array containing the 4-length arrays described above for each **group** of farmland in `land`. If there are no groups of farmland, return an empty array. You may return the answer in **any order**.

Example 1:

1	0	0
0	1	1
0	1	1

Input:

land = [[1,0,0],[0,1,1],[0,1,1]]

Output:

[[0,0,0,0],[1,1,2,2]]

Explanation:

The first group has a top left corner at land[0][0] and a bottom right corner at land[0][0].

The second group has a top left corner at land[1][1] and a bottom right corner at land[2][2].

Example 2:

1	1
1	1

Input:

land = [[1,1],[1,1]]

Output:

[[0,0,1,1]]

Explanation:

The first group has a top left corner at land[0][0] and a bottom right corner at land[1][1].

Example 3:

0

Input:

land = [[0]]

Output:

[]

Explanation:

There are no groups of farmland.

Constraints:

- $m == \text{land.length}$
- $n == \text{land}[i].\text{length}$
- $1 \leq m, n \leq 300$
- `land` consists of only `0`'s and `1`'s.
- Groups of farmland are **rectangular** in shape.

Accepted 5,057

Submissions 8,279

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class Solution {
 public int[][] findFarmland(int[][] land) {

 }
 }
}

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