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Description

Solution

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417. Pacific Atlantic Water Flow

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There is an $m \times n$ rectangular island that borders both the **Pacific Ocean** and **Atlantic Ocean**. The **Pacific Ocean** touches the island's left and top edges, and the **Atlantic Ocean** touches the island's right and bottom edges.

The island is partitioned into a grid of square cells. You are given an $m \times n$ integer matrix `heights` where `heights[r][c]` represents the **height above sea level** of the cell at coordinate (r, c) .

The island receives a lot of rain, and the rain water can flow to neighboring cells directly north, south, east, and west if the neighboring cell's height is **less than or equal to** the current cell's height. Water can flow from any cell adjacent to an ocean into the ocean.

Return a **2D list** of grid coordinates `result` where `result[i] = [ri, ci]` denotes that rain water can flow from cell (r_i, c_i) to **both** the Pacific and Atlantic oceans.

Example 1:

Pacific Ocean

1	2	2	3	5
3	2	3	4	4
2	4	5	3	1
6	7	1	4	5
5	1	1	2	4

Atlantic Ocean

Pacific Ocean

Atlantic Ocean

Input: `heights = [[1,2,2,3,5],[3,2,3,4,4],[2,4,5,3,1],[6,7,1,4,5],[5,1,1,2,4]]`
Output: `[[0,4],[1,3],[1,4],[2,2],[3,0],[3,1],[4,0]]`

Example 2:

Input: `heights = [[2,1],[1,2]]`
Output: `[[0,0],[0,1],[1,0],[1,1]]`

Constraints:

- $m == heights.length$
- $n == heights[r].length$
- $1 \leq m, n \leq 200$
- $0 \leq heights[r][c] \leq 10^5$

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```
1 class Solution {
2     public List<List<Integer>> pacificAtlantic(int[][] heights) {
3     }
4 }
5
```

Problems

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