1631. Path With Minimum Effort

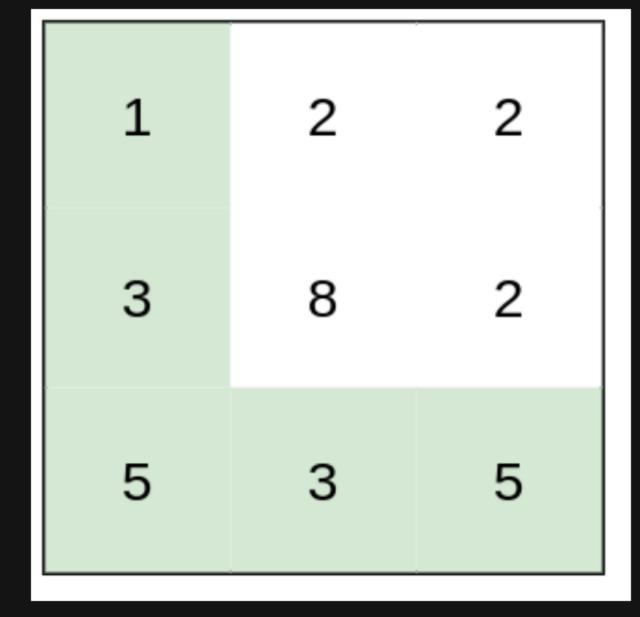
Description

You are a hiker preparing for an upcoming hike. You are given heights, a 2D array of size rows x columns, where heights[row][col] represents the height of cell (row, col). You are situated in the top-left cell, (0, 0), and you hope to travel to the bottom-right cell, (rows-1, columns-1) (i.e., 0-indexed). You can move up, down, left, or right, and you wish to find a route that requires the minimum effort.

A route's effort is the maximum absolute difference in heights between two consecutive cells of the route.

Return the minimum effort required to travel from the top-left cell to the bottom-right cell.

Example 1:



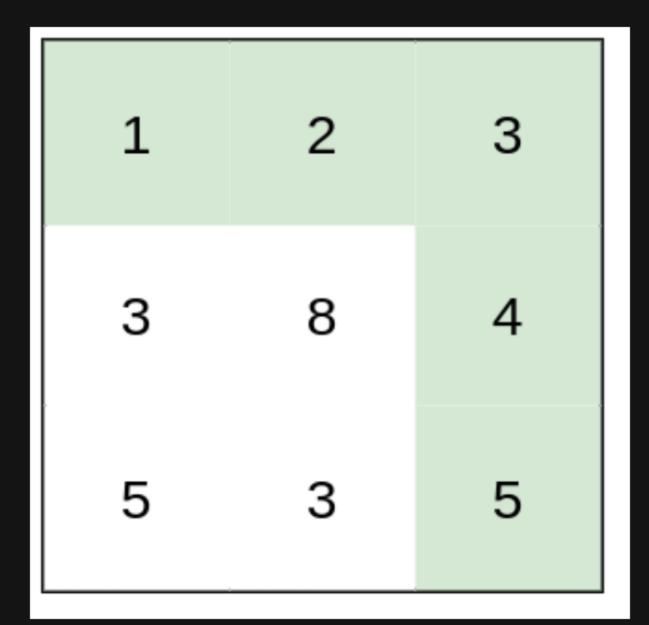
Input: heights = [[1,2,2],[3,8,2],[5,3,5]]

Output: 2

Explanation: The route of [1,3,5,3,5] has a maximum absolute difference of 2 in consecutive cells.

This is better than the route of [1,2,2,2,5], where the maximum absolute difference is 3.

Example 2:



Input: heights = [[1,2,3],[3,8,4],[5,3,5]]

Output: 1

Explanation: The route of [1,2,3,4,5] has a maximum absolute difference of 1 in consecutive cells, which is better than route [1,3,5,3,5].

Example 3:

1	2	1	1	1
_	_	_	_	_
1	2	1	2	1
1	2	1	2	1
1	2	1	2	1
1	1	1	2	1

Input: heights = [[1,2,1,1,1],[1,2,1,2,1],[1,2,1,2,1],[1,2,1,2,1],[1,1,1,2,1]]

Output: 0

Explanation: This route does not require any effort.

Constraints:

- rows == heights.length
- columns == heights[i].length
- 1 <= rows, columns <= 100
- 1 <= heights[i][j] <= 10 ⁶