Unique Paths II

63. Unique Paths II

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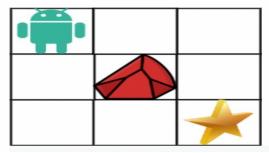
You are given an $m \times n$ integer array <code>grid</code>. There is a robot initially located at the **top-left corner** (i.e., <code>grid[0][0]</code>). The robot tries to move to the **bottom-right corner** (i.e., <code>grid[m-1][n-1]</code>). The robot can only move either down or right at any point in time.

An obstacle and space are marked as $\, 1 \,$ or $\, 0 \,$ respectively in $\, {\tt grid} \, .$ A path that the robot takes cannot include $\, {\tt any} \, {\tt square} \,$ that is an obstacle.

Return the number of possible unique paths that the robot can take to reach the bottom-right corner.

The testcases are generated so that the answer will be less than or equal to $2 * 10^9$.

Example 1:



Input: obstacleGrid = [[0,0,0],[0,1,0],[0,0,0]]

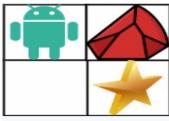
Output: 2

Explanation: There is one obstacle in the middle of the $3x3\ grid$ above.

There are two ways to reach the bottom-right corner:

- 1. Right -> Right -> Down -> Down
- 2. Down -> Down -> Right -> Right

Example 2:



Input: obstacleGrid = [[0,1],[0,0]]

Output: 1

Constraints:

- m == obstacleGrid.length
- n == obstacleGrid[i].length
- 1 <= m, n <= 100
- obstacleGrid[i][j] is 0 or 1.