

2373. Largest Local Values in a Matrix

Easy Topics Companies Hint

You are given an `n x n` integer matrix `grid`.

Generate an integer matrix `maxLocal` of size $(n - 2) \times (n - 2)$ such that:

- `maxLocal[i][j]` is equal to the **largest** value of the `3 x 3` matrix in `grid` centered around row `i + 1` and column `j + 1`.

In other words, we want to find the largest value in every contiguous `3 x 3` matrix in `grid`.

Return *the generated matrix*.

Example 1:

9	9	8	1
5	6	2	6
8	2	6	4
6	2	2	2

9	9
8	6

Input: `grid = [[9,9,8,1],[5,6,2,6],[8,2,6,4],[6,2,2,2]]`
Output: `[[9,9],[8,6]]`
Explanation: The diagram above shows the original matrix and the generated matrix.
Notice that each value in the generated matrix corresponds to the largest value of a contiguous `3 x 3` matrix in `grid`.

Example 2:

1	1	1	1	1
1	1	1	1	1
1	1	2	1	1
1	1	1	1	1
1	1	1	1	1

2	2	2
2	2	2
2	2	2

Input: `grid = [[1,1,1,1,1],[1,1,1,1,1],[1,1,2,1,1],[1,1,1,1,1],[1,1,1,1,1]]`
Output: `[[2,2,2],[2,2,2],[2,2,2]]`
Explanation: Notice that the 2 is contained within every contiguous `3 x 3` matrix in `grid`.

Constraints:

- `n == grid.length == grid[i].length`
- `3 <= n <= 100`
- `1 <= grid[i][j] <= 100`

Seen this question in a real interview before? 1/5

Yes No

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