

2387. Median of a Row Wise Sorted Matrix Premium

Medium Topics Companies Hint

Given an `m x n` matrix `grid` containing an **odd** number of integers where each row is sorted in **non-decreasing** order, return *the **median** of the matrix*.

You must solve the problem in less than `O(m * n)` time complexity.

Example 1:

Input: `grid = [[1,1,2],[2,3,3],[1,3,4]]`
Output: `2`
Explanation: The elements of the matrix in sorted order are 1,1,1,2,2,3,3,3,4. The median is 2.

Example 2:

Input: `grid = [[1,1,3,3,4]]`
Output: `3`
Explanation: The elements of the matrix in sorted order are 1,1,3,3,4. The median is 3.

Constraints:

- `m == grid.length`
- `n == grid[i].length`
- `1 <= m, n <= 500`
- `m` and `n` are both odd.
- `1 <= grid[i][j] <= 106`
- `grid[i]` is sorted in non-decreasing order.

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

Yes No

Accepted 3.7K | Submissions 5.4K | Acceptance Rate 69.4%

Topics

Array Binary Search Matrix

Companies

0 - 6 months

DE Shaw 2

Hint 1

How can you use the fact that the rows are sorted in non-decreasing order to solve the problem efficiently?

Hint 2

Try to binary search the answer.

Similar Questions

Median of Two Sorted Arrays Hard

Discussion (4)