3446. Sort Matrix by Diagonals

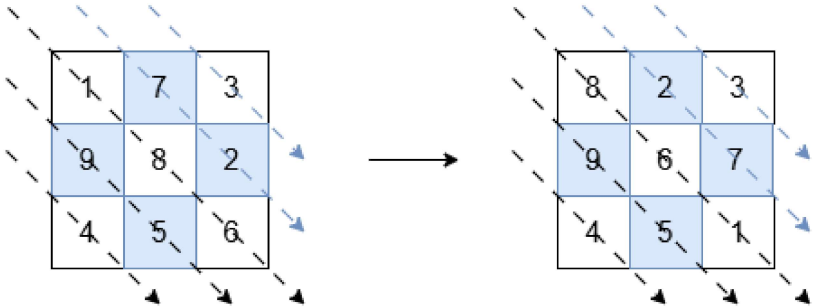
Solved ●

Medium Hint

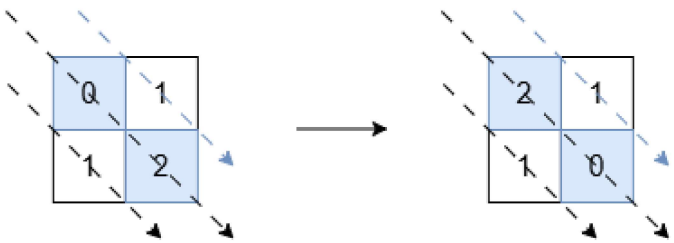
You are given an `n x n` square matrix of integers `grid`. Return the matrix such that:

- The diagonals in the **bottom-left triangle** (including the middle diagonal) are sorted in **non-increasing order**.
- The diagonals in the **top-right triangle** are sorted in **non-decreasing order**.

Example 1:

> **Input:** grid = [[1,7,3],[9,8,2],[4,5,6]]
>
> **Output:** [[8,2,3],[9,6,7],[4,5,1]]
>
> **Explanation:**
>
> 
>
>
> The diagonals with a black arrow (bottom-left triangle) should be sorted in non-increasing order:
>
> - `[1, 8, 6]` becomes `[8, 6, 1]`.
> - `[9, 5]` and `[4]` remain unchanged.
>
> The diagonals with a blue arrow (top-right triangle) should be sorted in non-decreasing order:
>
> - `[7, 2]` becomes `[2, 7]`.
> - `[3]` remains unchanged.

Example 2:

> **Input:** grid = [[0,1],[1,2]]
>
> **Output:** [[2,1],[1,0]]
>
> **Explanation:**
>
> 
>
>
> The diagonals with a black arrow must be non-increasing, so `[0, 2]` is changed to `[2, 0]`. The other diagonals are already in the correct order.

Example 3:

> **Input:** grid = [[1]]

> **Output:** [[1]]
>
> **Explanation:**
>
> Diagonals with exactly one element are already in order, so no changes are needed.

Constraints:

- `grid.length == grid[i].length == n`
- `1 <= n <= 10`
- `-10^5 <= grid[i][j] <= 10^5`

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

Yes No

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Hint 1

Hint 2

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