

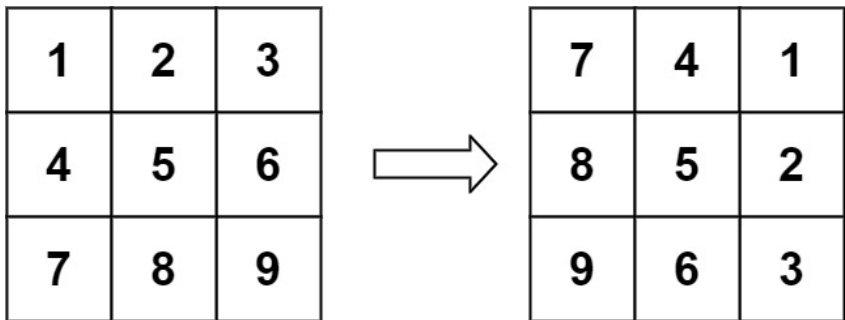
48. Rotate Image

Medium [🏷️ Topics](#) [🏢 Companies](#)

You are given an $n \times n$ 2D matrix representing an image, rotate the image by **90** degrees (clockwise).

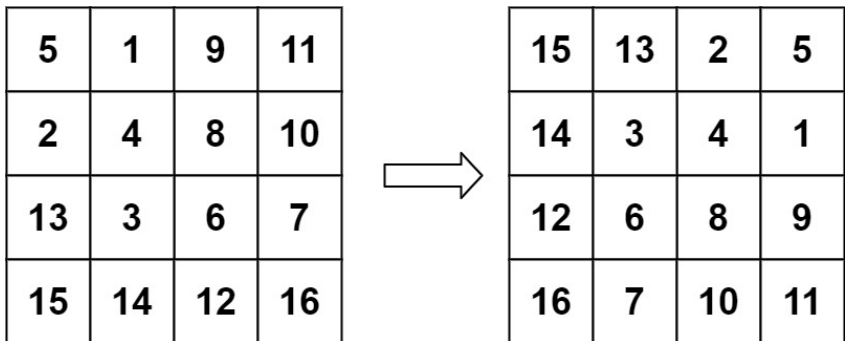
You have to rotate the image **in-place**, which means you have to modify the input 2D matrix directly. **DO NOT** allocate another 2D matrix a

Example 1:



Input: matrix = [[1,2,3],[4,5,6],[7,8,9]]
Output: [[7,4,1],[8,5,2],[9,6,3]]

Example 2:



Input: matrix = [[5,1,9,11],[2,4,8,10],[13,3,6,7],[15,14,12,16]]
Output: [[15,13,2,5],[14,3,4,1],[12,6,8,9],[16,7,10,11]]

Constraints:

- $n == \text{matrix.length} == \text{matrix}[i].\text{length}$
- $1 \leq n \leq 20$
- $-1000 \leq \text{matrix}[i][j] \leq 1000$

Seen this question in a real interview before? 1/4

☒ Yes ☐ No

Accepted **1.6M** Submissions **2.2M** Acceptance Rate **73.7%**

[🏷️ Topics](#)

[🏢 Companies](#)

[📖 Similar Questions](#)

[💬 Discussion \(111\)](#)