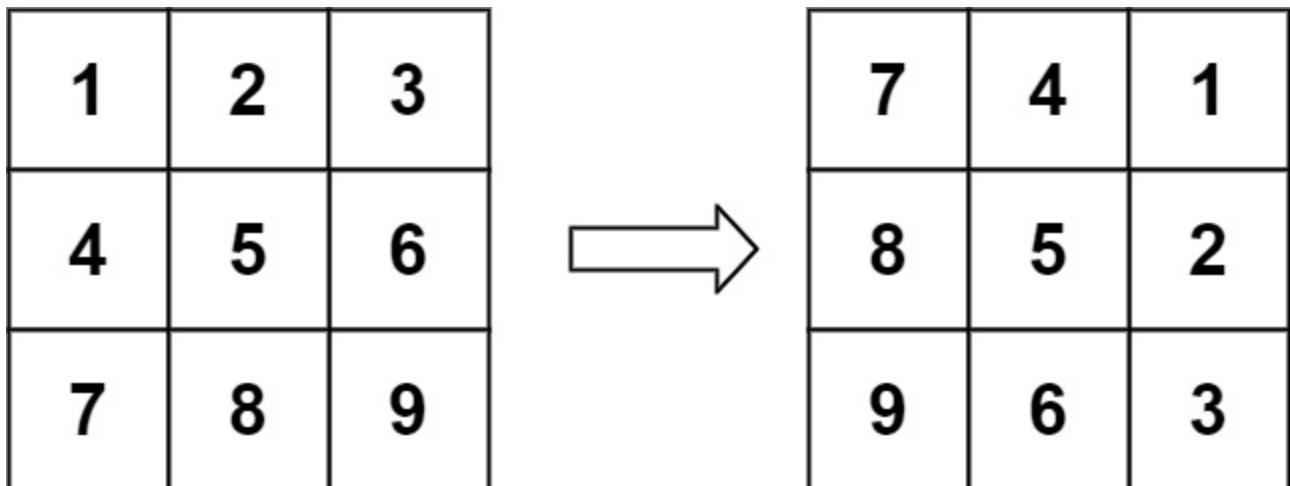


## 48. Rotate Image

You are given an  $n \times n$  2D matrix representing an image, rotate the image by  $90^\circ$  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 and do the rotation.

### Example 1:

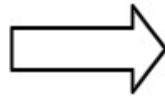


Input: matrix = [[1,2,3],[4,5,6],[7,8,9]]

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

**Example 2:**

5	1	9	11
2	4	8	10
13	3	6	7
15	14	12	16



15	13	2	5
14	3	4	1
12	6	8	9
16	7	10	11

**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:**

$n == \text{matrix.length} == \text{matrix}[i].\text{length}$

$1 \leq n \leq 20$

$-1000 \leq \text{matrix}[i][j] \leq 1000$