

## 48. Rotate Image

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You are given an  $n \times n$  2D matrix representing an image.

Rotate the image by 90 degrees (clockwise).

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C++ ▾





```
1 class Solution {
2 public:
3     void rotate(vector<vector<int>>& matrix) {
4         int n = matrix.size();
5         for(int layer = 0; layer < n/2; layer++){
6             int first = layer;
7             int last = n - 1 - layer;
8             for(int i=first; i<last; i++){
9                 int offset = i - first;
10                int top = matrix[first][i];
11                matrix[first][i] = matrix[last-offset][first];
12                matrix[last-offset][first] = matrix[last][last-offset];
13                matrix[last][last-offset] = matrix[i][last];
14                matrix[i][last] = top;
15            }
16        }
17    }
18 };
```

Custom Testcase ☐

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