

Description

Solution

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Submissions

## 59. Spiral Matrix II

Medium

2809

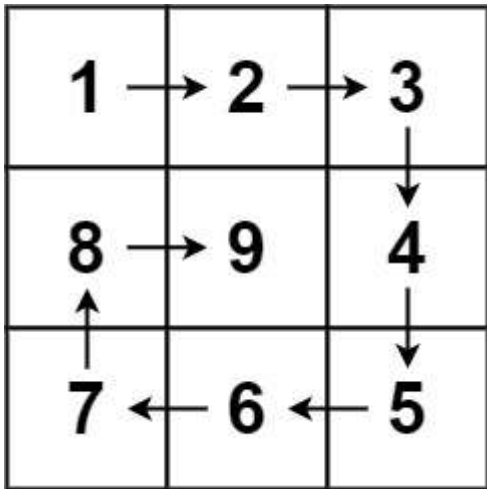
166

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Given a positive integer  $n$ , generate an  $n \times n$  matrix filled with elements from  $1$  to  $n^2$  in spiral order.

### Example 1:



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

### Example 2:

Input:  $n = 1$   
Output:  $[[1]]$

### Constraints:

- $1 \leq n \leq 20$

Accepted 319,768

Submissions 510,261

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Yes

No

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Console

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```
1 class Solution {
2     public int[][] generateMatrix(int n) {
3
4         int[][] matrix = new int[n][n];
5
6         int counter = 1;
7         int top = 0;
8         int left = 0;
9         int bottom = n - 1;
10        int right = n - 1;
11
12        while(true){
13
14            for(int i = left; i <= right; i++){
15                matrix[top][i] = counter++;
16            }
17
18            top++;
19
20            if(left > right || top > bottom)
21                break;
22
23            for(int i = top; i <= bottom; i++){
24                matrix[i][right] = counter++;
25            }
26
27            right--;
28
29            if(left > right || top > bottom)
30                break;
31
32            for(int i = right; i >= left; i--){
33                matrix[bottom][i] = counter++;
34            }
35
36            bottom--;
37
38            if(left > right || top > bottom)
39                break;
40
41            for(int i = bottom; i >= top; i--){
42                matrix[i][left] = counter++;
43            }
44
45            left++;
46
47            if(left > right || top > bottom)
48                break;
49        }
50
51        return matrix;
52    }
53 }
```