Go Spiral Shakimaan!

ZPRAC-16-17-Lab8

[30]*Go Spiral Shakimaan*!

As you know, Shaktimaan is a saviour of all those kids who are good at ESC101A, he has to save an ESC101A student trapped in a spiral maze by Dr Jaikal. Given a 2-D array, he has to reach the centre of the matrix by travelling around the matrix in a spiral pattern. Help him by printing the spiral pattern of his path.

Given n and a 2-D array A of size $n \times n$, print the elements of the array in a spiral pattern starting from the element $A[0][0]$ in clockwise direction till the last middle element of the array. See example for more clarification.

Example1:
Input:
3
1 2 3
4 5 6
7 8 9
Output:
1 2 3 6 9 8 7 4 5

Example2:
Input:
4
1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16
Output:
1 2 3 4 8 12 16 15 14 13 9 5 6 7 11 10

Note: you should declare only one 2-D array for scanning the input. you should not use any other 1-D or 2-D array anywhere in your solution code.