



**Your Ultimate Guide To Landing  
Top AI roles**



**DECODE  
AiML**

P-5

DECODE  
AIML

Q. Input :  $n \times n$  2D matrix  $\rightarrow$  Image

Output : Rotate the image by 90 degree

Constraints

$$1 \leq n \leq 20$$

R0	1	2	3
R1	4	5	6
R2	7	8	9

$90^\circ$  

c0	c1	c2
7	4	1
8	5	2
9	6	3

w

# Brute force



A 3x3 grid of numbers from 1 to 9. The numbers are arranged as follows:

0,0 1	0,1 2	0,2 3
1,0 4	1,1 5	1,2 6
2,0 7	2,1 8	2,2 9

The grid is rotated 90° clockwise, resulting in the following arrangement:

0,0 7	0,1 4	0,2 1
1,0 8	1,1 5	1,2 2
2,0 9	2,1 6	2,2 3

90°  
→

$$\begin{aligned}0,0 &\rightarrow 0,2 \\0,1 &\rightarrow 1,2 \\0,2 &\rightarrow 2,2\end{aligned}$$

$$(r, c) \rightarrow (c, n-1-r)$$

→

$$1,0 \rightarrow 0,1$$

$$1,1 \rightarrow 1,1$$

$$1,2 \rightarrow 2,1$$

→

$$2,0 \rightarrow 0,0$$

$$2,1 \rightarrow 1,0$$

$$2,2 \rightarrow 2,0$$

Optimal  
 $(i, j) = (1, i)$  |  $i \rightarrow (0, n-1)$   
 $j \rightarrow (i+1, n-1)$

$(0, 0)$	$(0, 1)$	$(0, 2)$
1	2	3
$(1, 0)$	$(1, 1)$	$(1, 2)$
4	5	6
$(2, 0)$	$(2, 1)$	$(2, 2)$
7	8	9

$90^\circ$   
 $0 \rightarrow 0, 1, 2$   
 $1 \rightarrow 1, 2$   
 $2 \rightarrow 2$

7	4	1
8	5	2
9	6	3

1	4	7
2	5	8
3	6	9

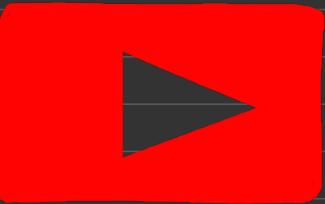
1	4	7
2	5	8
3	6	9

7	4	1
8	5	2
9	6	3

Transpose ↴

Reverse  
rows ↴

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