Array : Video - 53

Medium — E.A.S.Y

Leetcode - 542

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01 Matrix

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542. 01 Matrix

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Given an `m x n` binary matrix `mat`, return *the distance of the nearest* `0` *for each cell.*

The distance between two adjacent cells is `1`.

Example 1:

0	0	0
0	1	0
0	0	0

output :

0	0	0
0	1	0
0	0	0

1

(1,1)

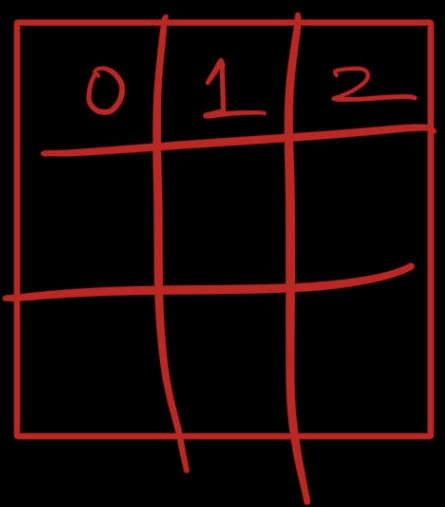
why BFS ?

Nearest distance / shortest path

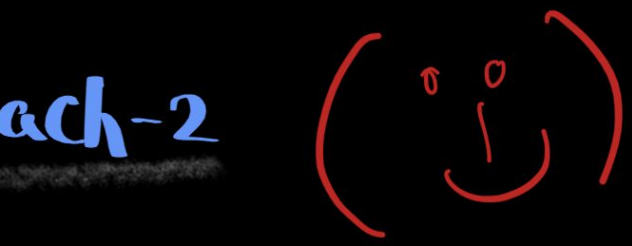
Approach-1...

BFS from each 1 to their nearest 0.

	0	1	2
0	0	1	1
1	1	1	1
2	1	1	1

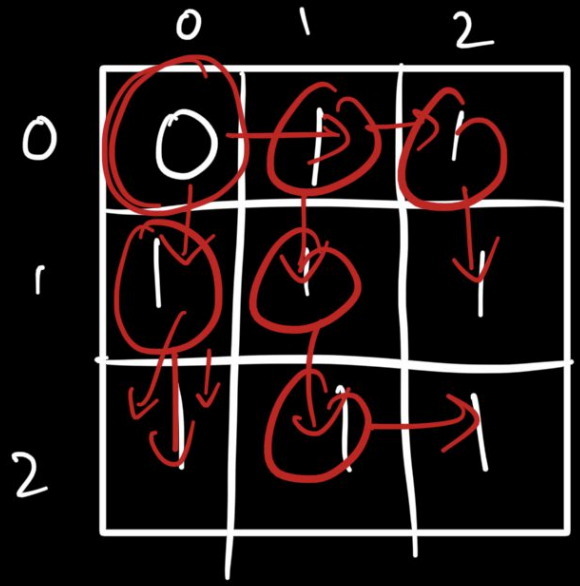


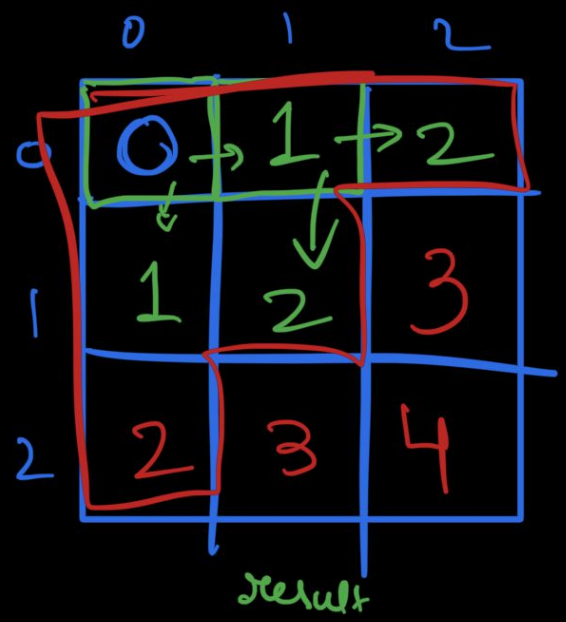
Approach-2

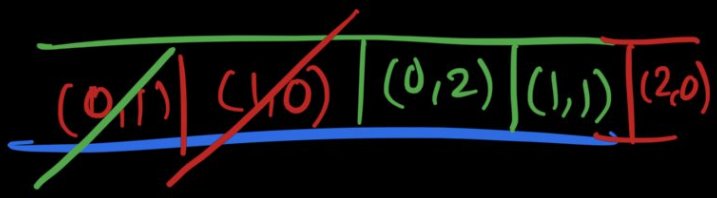


BFS from 0s to 1

1 +







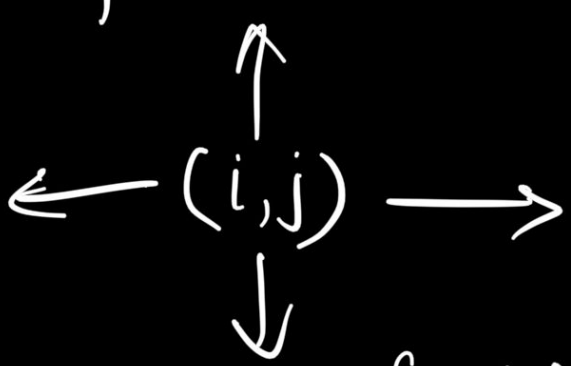
(1,0)

result[2][0] = result[1,0] + 1

= 1 + 1 = 2

Story to Code:

1. result ~> {-1}
2. Store co-ordn of all O's
3. Hit BFS from those co-ord
4. Keep upd the result.



- (•) Out of Bound ✗
- (•) result == -1