



Matrix Bfs & Dfs Problems



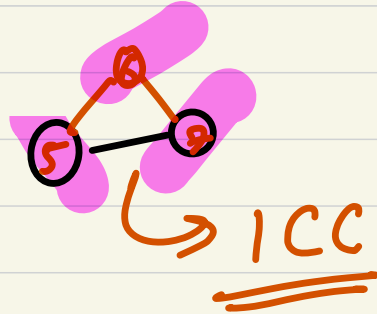
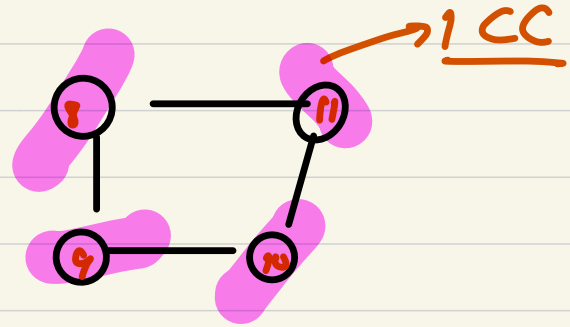
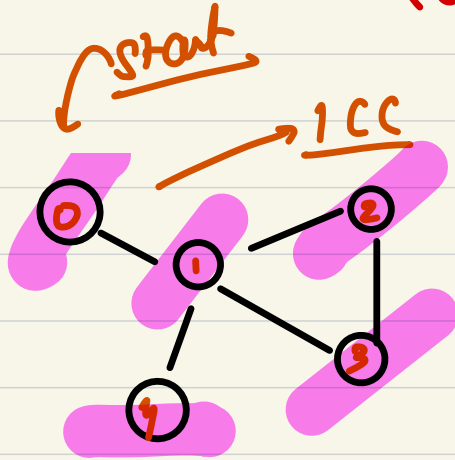
(we convert / visualize our matrix in
the form of a graph.)

⏟

(every node represent land)

connected nodes are part of same island

Connected Components → Dfs
Bfs



visited
set

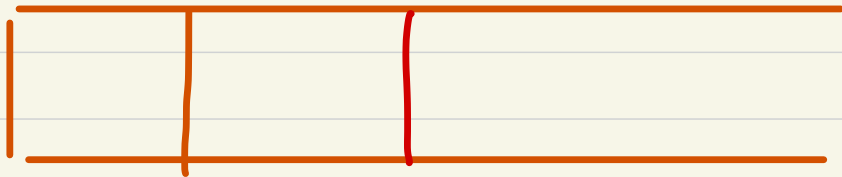
You try to do bfs/dfs from every node except

those which are already visited.

No. of times we hit the bfs/dfs func' is
our CC count.

CC = ~~1~~ ~~2~~ ~~3~~

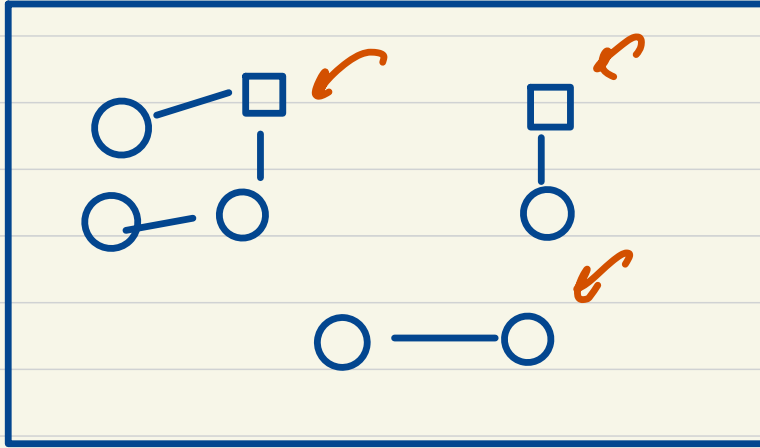
	0	1	2	3	4
0	-1	-1	0	0	0
1	-1	-1	0	0	0
2	0	0	-1	0	0
3	0	0	0	0	0
4	0	0	0	-1	-1

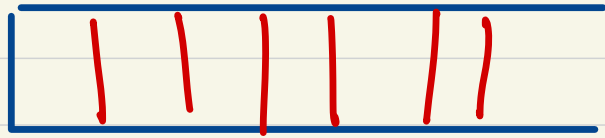
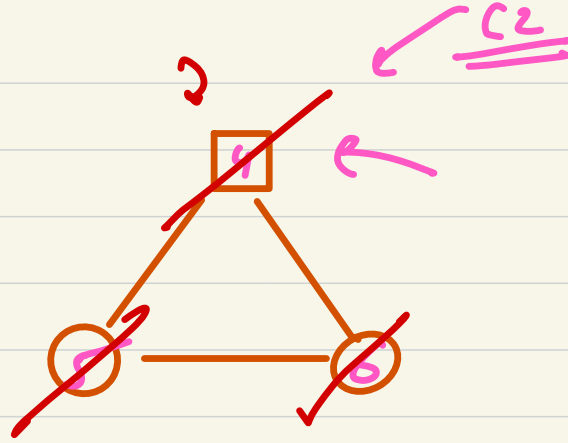
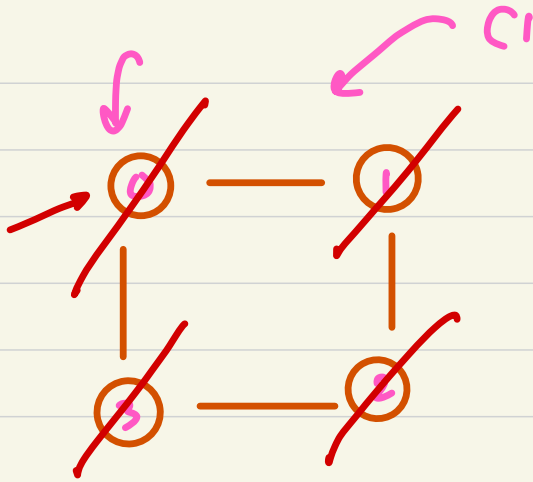


(4,3) (4,4)

go to every cell of grid assuming a node. if cell value is 0, Skip it
if you see 1, do bfs/dfs

Multi Source Bfs Problems dfs

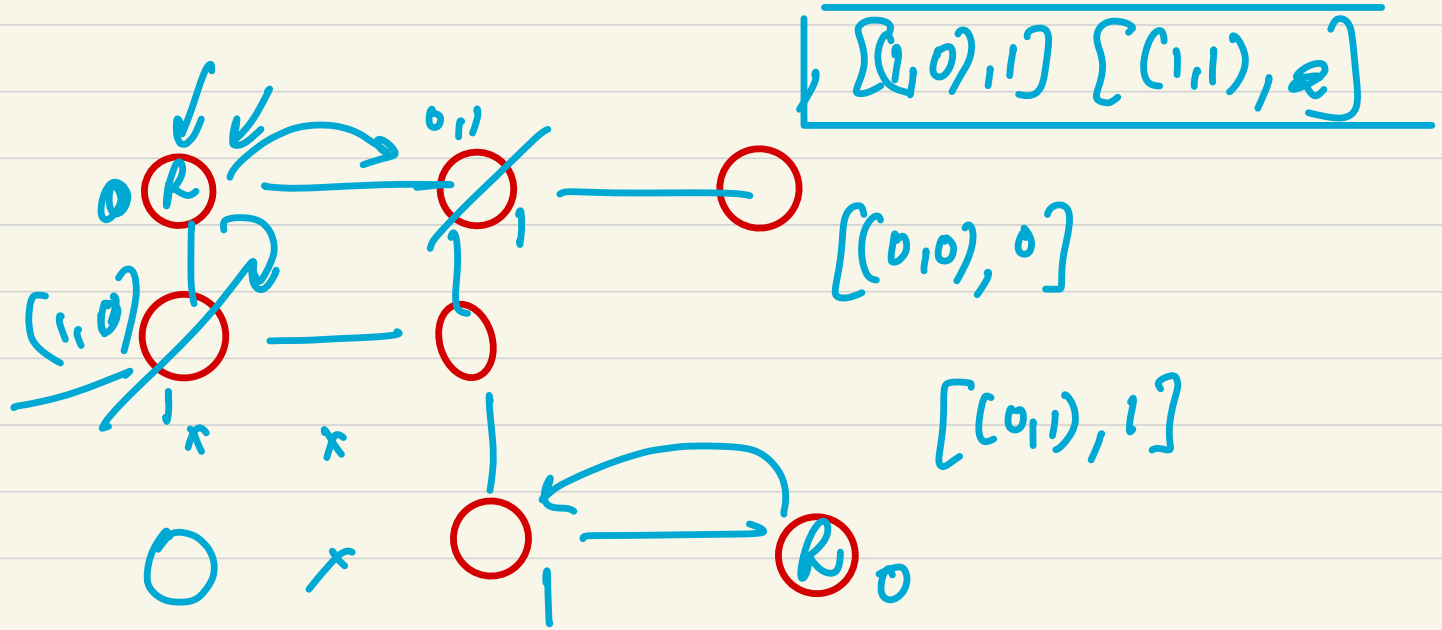




0 4 1 3 5 6 2

if one node is rotten, it
will not wait for any other
rotten nodes to rot the
neighbours.

That's why we have to parallelly start rotting the neighbors.



1	1	1	1
x	x	0	x
1	1	0	0
x	1	1	x

dfg/6fi

x	x	x	x	x	x
x	0 X	x	x	x	x
x	x	x	0	0	x
x	0	0	0	0	x
x	0	x	x	x	x