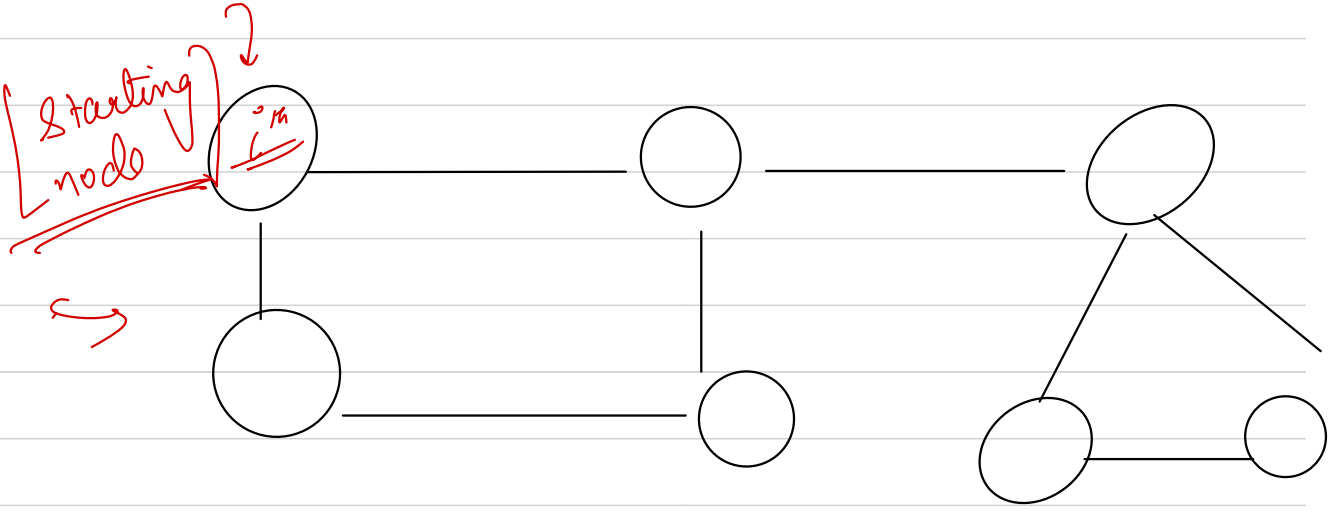
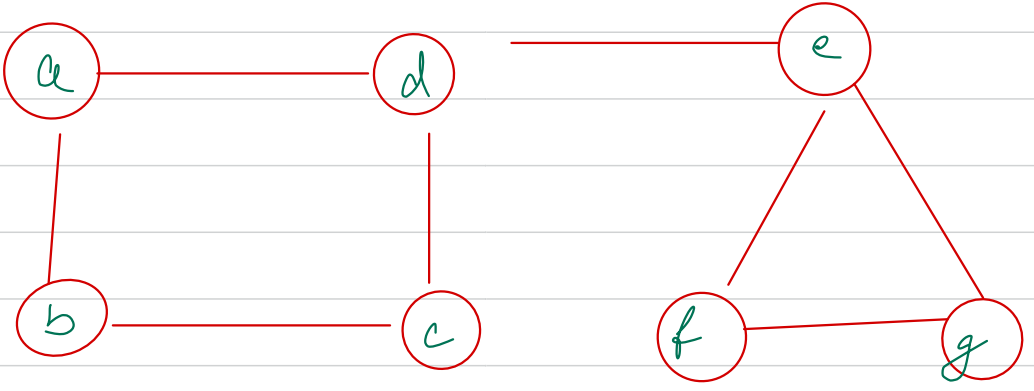
→ BFS → Breadth First Search




If we have read the $i^{th}$ node, then we need to read the set of immediate neighbours of 'i'.

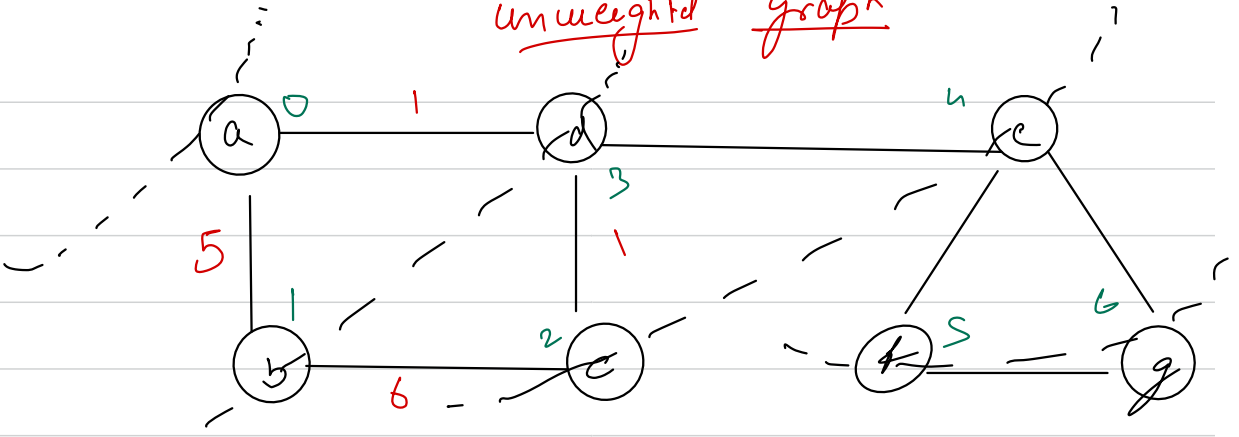
a, b, d




a → start node

a → b, d

unweighted graph




Given a Src and a destination calculate the shortest path between them & print the path.

Qn You've a grid, where each cell is one of the 4 character → [U, L, R, D]

U → up  R → Right

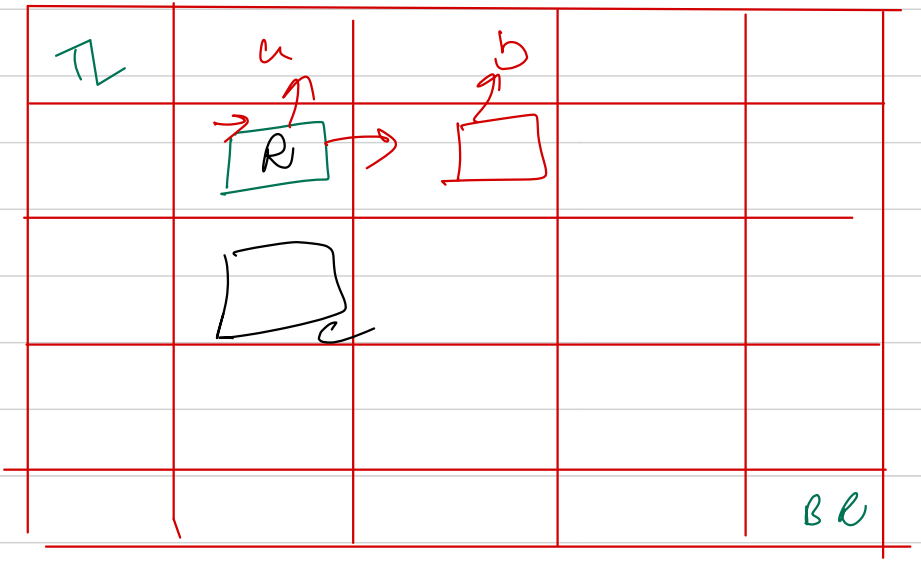
L → left  D → down

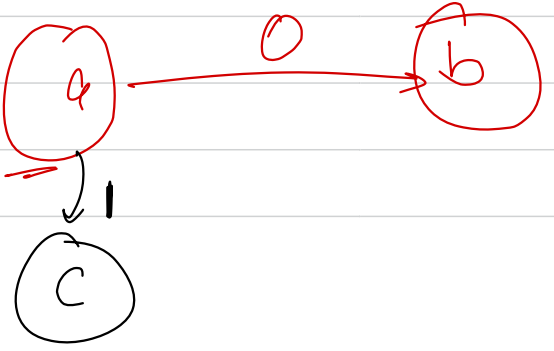
| | | |
|---|---|---|
| R | D | D |
| D | L | U |
| R | R | R |

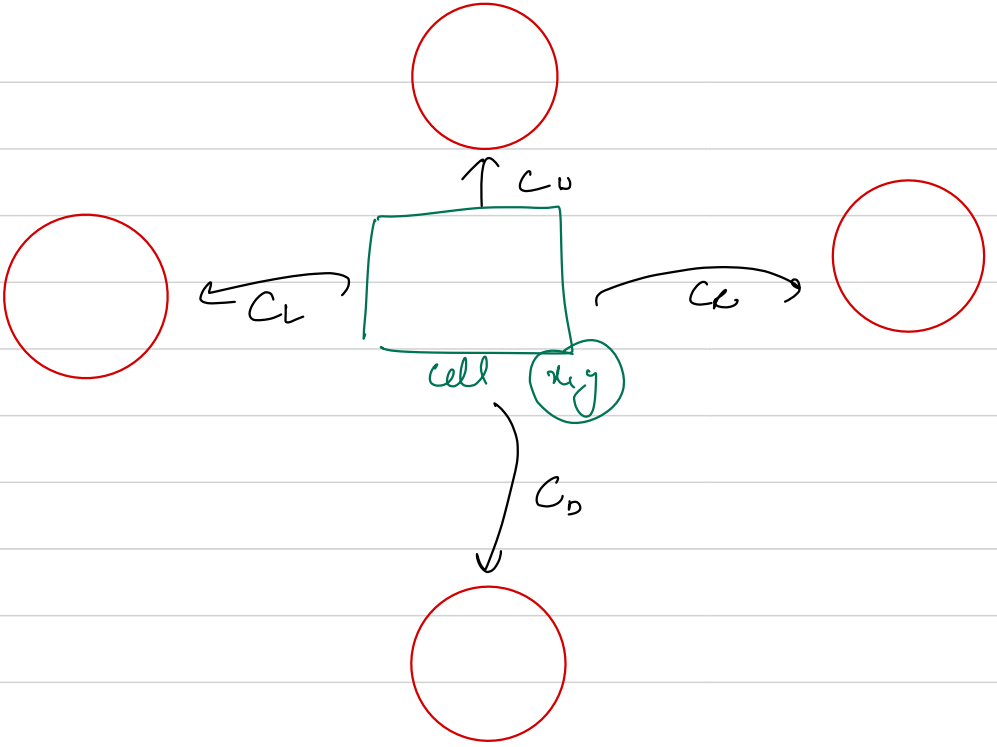
Zero

You can change any character by paying a cost of 1 unit. Find the min cost such that there exist any path to reach from top left to bottom right.

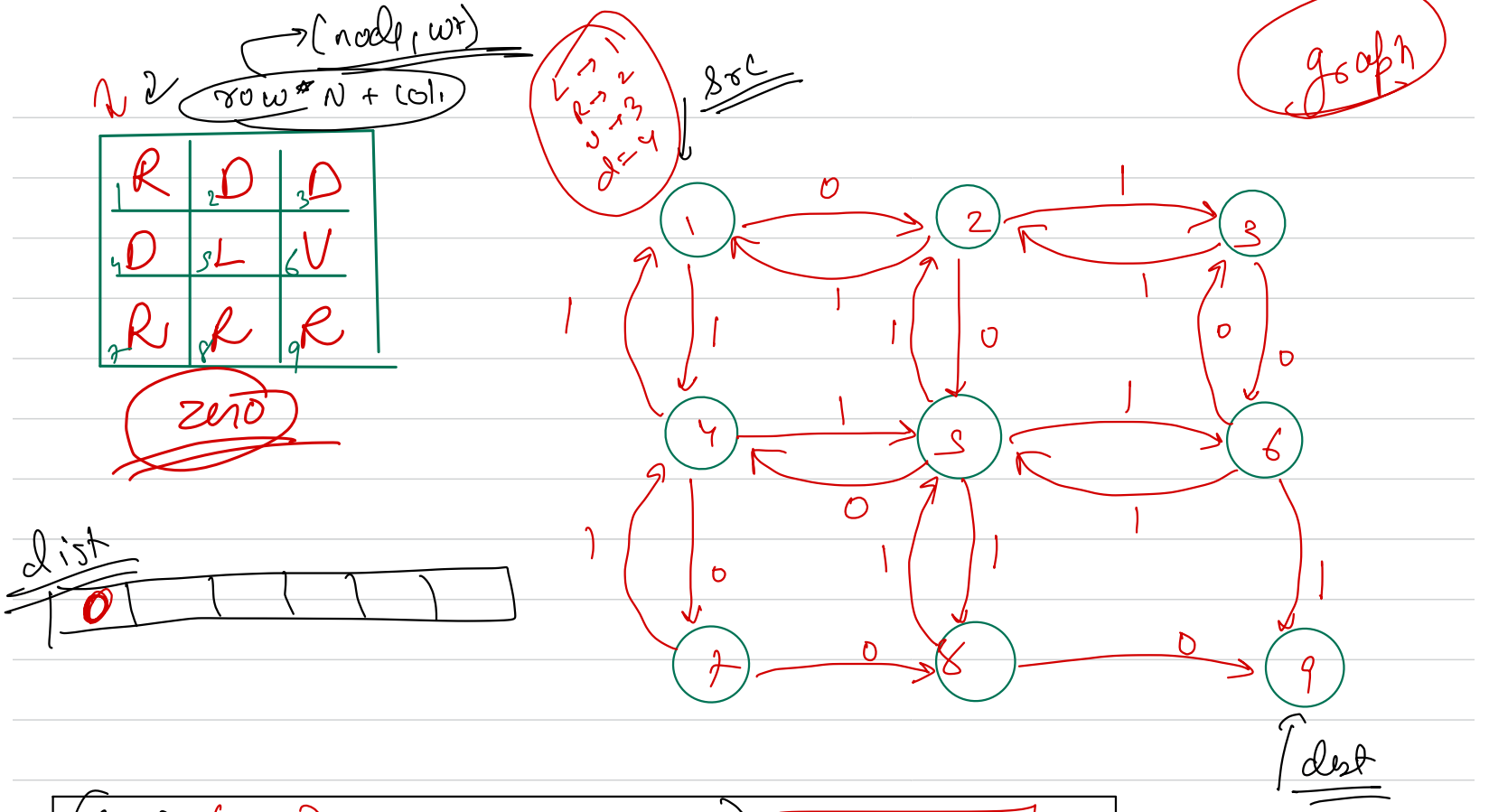
direction you should go == written direction
↓
cost 0



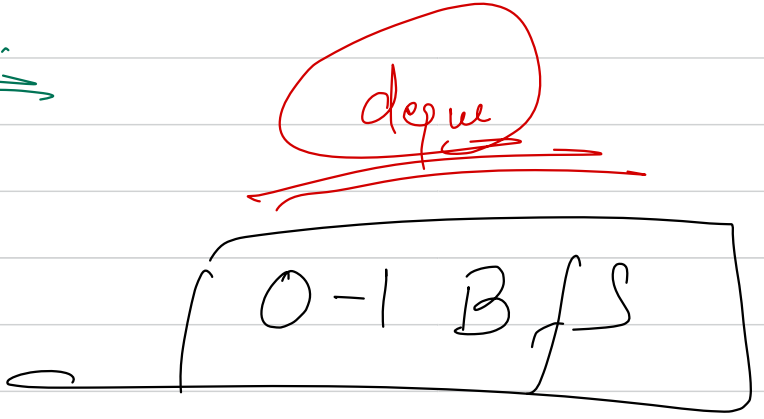



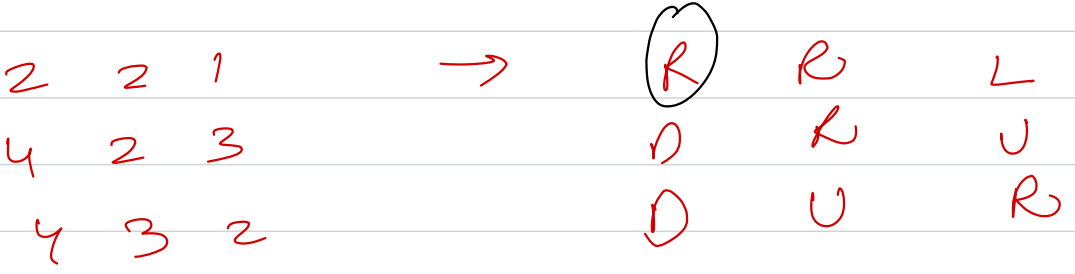



one of the edges will be having cost 0, rest will be having one.


(node, wt)
row * N + col
R D D
D SL V
R R R
zero
src
dist
graph
0
1
2
3
4
5
6
7
8
9
dist
(2,0) (5,0) (4,1)

We need to ensure that vertex with 0 wt edges is picked first & rest are picked if there is no 0 wt edge.






https://pastebin.com/MY4sjsUn

https://pastebin.com/3xekjUgA