O1 matrix VVVIMPT

class Solution {

public int[][] updateMatrix(int[][] matrix)

{

Queue<int[]> q=new LinkedList<>();

for(int i=0 ;i<matrix.length ;i++)

{

for(int j=0 ;j<matrix[0].length ;j++)

{

if(matrix[i][j]==0)

{

q.add(new int[]{i,j});

}

else

{

matrix[i][j] = Integer.MAX\_VALUE;

}

}

}

int[][] dir=new int[][]{{0,-1},{0,1},{1,0},{-1,0}};

while(!q.isEmpty())

{

int[] current=q.poll();

int x=current[0];

int y=current[1];

for(int[] d : dir)

{

int xtemp=d[0]+x;

int ytemp=d[1]+y;

if(xtemp <0 || ytemp <0 || xtemp>=matrix.length || ytemp >=matrix[0].length || matrix[xtemp][ytemp] <=matrix[x][y] +1)

{

continue;

}

q.add(new int[]{xtemp,ytemp});

matrix[xtemp][ytemp]=matrix[x][y] +1;

}

}

return matrix;

}

}