

1020. Number of Enclaves

You are given an $m \times n$ binary matrix `grid`, where `0` represents a sea cell and `1` represents a land cell.

A move consists of walking from one land cell to another adjacent (4-directionally) land cell or walking off the boundary of the `grid`.

Return the number of land cells in `grid` for which we cannot walk off the boundary of the grid in any number of moves.

0	0	0	0
1	0	1	0
0	1	1	0
0	0	0	0

```
Input: grid = [[0,0,0,0],[1,0,1,0],[0,1,1,0],[0,0,0,0]]
```

```
Output: 3
```

Explanation: There are three 1s that are enclosed by 0s, and one 1 that is not enclosed because its on the boundary.

0	1	1	0
0	0	1	0
0	0	1	0
0	0	0	0

Input: grid = [[0,1,1,0],[0,0,1,0],[0,0,1,0],[0,0,0,0]]

Output: 0

Explanation: All 1s are either on the boundary or can reach the boundary.

~~~~~Python

class Solution:

def numEnclaves(self, grid: List[List[int]]) -> int:

for i in range(len(grid)):

for j in range(len(grid[0])):

if i==0 or j==0 or i==len(grid)-1 or j==len(grid[0])-1:

if grid[i][j]==1:

self.dfs(grid,i,j)

count = 0

for i in range(len(grid)):

for j in range(len(grid[0])):

if grid[i][j]==1:

count =count+1

return count

def dfs(self,grid,r,c):

if r<0 or c<0 or r>=len(grid) or c>=len(grid[0]) or grid[r][c]==0:

return

grid[r][c]=0

self.dfs(grid,r-1,c)

self.dfs(grid,r,c+1)

```
self.dfs(grid,r+1,c)  
self.dfs(grid,r,c-1)
```