Python assignment
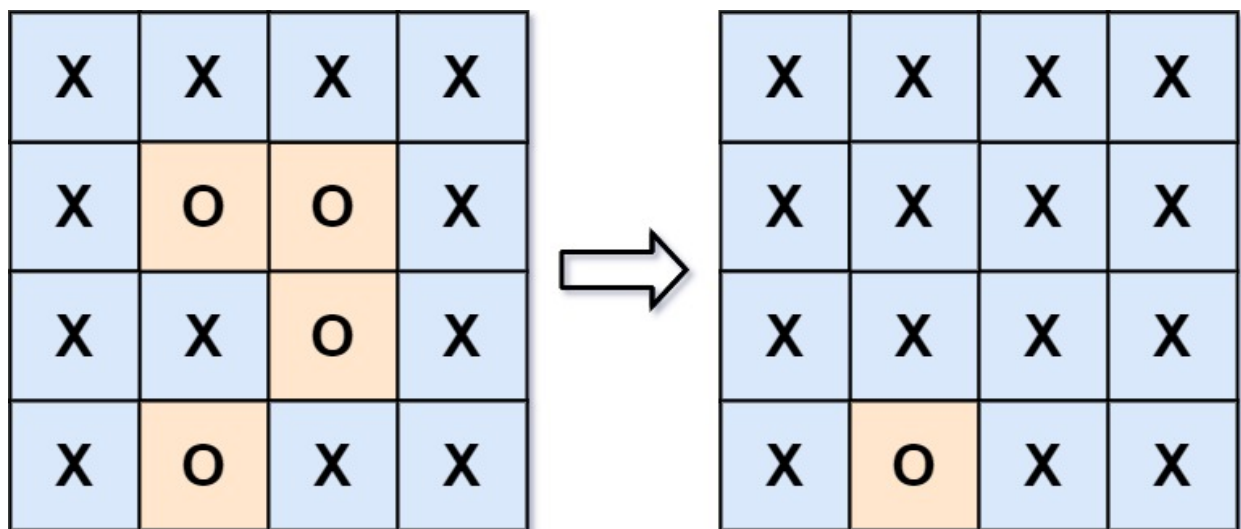
Peer review for Shubham Jhawar

Problem statement:

Given an m*n matrix board containing 'X' and 'O', Capture all regions that are 4-directionally surrounded by 'X'. A region is captured by flipping all 'O's into 'X's in that surrounded region.

Approach :

At the boundary of the matrix if it is 'O' and the connected 'O' with the boundary will be definitely not surrounded by 'X' .So we need to keep it as it is . The 'O''s which are in the middle of the matrix are surrounded by 'X'.So basically that needs to be changed to 'X'.
To accomplish this, firstly a dfs call is done at the boundary if it is 'O' in all four directions .But while iterating ,mark every connected and visited 'O' with '-' .Thats make the matrix containing '-','X','O'.
To get the desired result,change all the '-' to 'O' . And remaining 'O' to 'X'.
This solves the problem.

Time complexity: O(M*N)   Auxiliary Space: O(M*N)