Question: https://leetcode.com/problems/max-area-of-island/

So we solve this problem using backtracking where visited el are marked as -1, and for each el we check their 4 neighbours, if neighbours are zero or -1 we return 0, else we return 1+helper function of 4 neighburs. Therefore if we add 1 unit of each land we will end up getting the area, thus now we check all areas for getting the max area.

Code:  
class Solution {

public int maxAreaOfIsland(int[][] grid) {

int max = Integer.MIN\_VALUE;

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

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

max=Math.max(max, helper(i, j, grid));

grid[i][j]=-1;

}

}

return max;

}

public int helper(int i, int j, int[][] grid){

if(i<0||i==grid.length||j<0||j==grid[0].length){

return 0;

}

else if(grid[i][j]==0||grid[i][j]==-1){

return 0;

}

else{

grid[i][j]=-1;

return (1 + helper(i,j-1,grid) + helper(i,j+1,grid) + helper(i-1,j,grid) + helper(i+1,j,grid));

}

}

}

Github Link :<https://lnkd.in/ecwtJeaz>