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Batch 3

FDS-Lab

Island

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CountIslands (int a[R][C]):

d = Disjoint Set (n \* m);

for i = 0 to i = R

for j = 0 to j = C

if (a[i][j] == 1)

{

if (a[i+1][j] == 1)

d.union(i, j, i, j+1)

if (a[i][j+1] == 1)

d.union(i, j, i+1, j+1)

—  
—

}

Count = 0, c[R \* C] = {0}

for i = 0 to R

for j = 0 to C

if (a[i][j] == 1)

x = d.find(i, j)

if (c[x] == 0)

Count ++

c[x] ++

else c[x] ++

return Count

