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Batch 3

ADS-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+1][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
```