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## Write-up

### \* Islands Problem using Disjoint Sets

→ Pseudo-code :-

```
// given a 2-D matrix mat[row][col]
// Create a 2-D matrix visit[row][col]
// Create a parent array, parent[row][col]
for all posi in row
  for all posj in col:
    if mat[posi][posj] == 1:
      // create set with mat[posi][posj] as parent
      makeSet()
      parent[row][col] ← mat[row][col]
```

for all posi in rows:

for all posj in col:

if !visit[posi][posj] && mat[posi][posj] == 1:

visit[posi][posj] = true

for all neighbours in mat[posi][posj]:

if mat[posi][posj] == 1:

// Union of set mat[posi][posj] & mat[neighbours]

for all i in row:

for all j in col:

count ← distinct parent[i][j]

no-of-island = count

return no-of-island

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