

## 694. Number of Distinct Islands Premium

Medium

Topics

Companies

You are given an  $m \times n$  binary matrix `grid`. An island is a group of `1`'s (representing land) connected **4-directionally** (horizontal or vertical.) You may assume all four edges of the grid are surrounded by water.

An island is considered to be the same as another if and only if one island can be translated (and not rotated or reflected) to equal the other.

Return the number of **distinct** islands.

Example 1:

1	1	0	0	0
1	1	0	0	0
0	0	0	1	1
0	0	0	1	1

**Input:** `grid = [[1,1,0,0,0],[1,1,0,0,0],[0,0,0,1,1],[0,0,0,1,1]]`

**Output:** 1

Example 2:

1	1	0	1	1
1	0	0	0	0
0	0	0	0	1
1	1	0	1	1

**Input:** `grid = [[1,1,0,1,1],[1,0,0,0,0],[0,0,0,0,1],[1,1,0,1,1]]`

**Output:** 3

Constraints:

- `m == grid.length`
- `n == grid[i].length`
- `1 <= m, n <= 50`
- `grid[i][j]` is either `0` or `1`.

Seen this question in a real interview before? 1/5

Yes

No

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Topics

Hash Table

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Breadth-First Search

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Hash Function

Companies

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0 - 6 months

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Microsoft 2

Splunk 2

6 months ago

Meta 4

Oracle 2

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Number of Distinct Islands II

Hard

Count Sub Islands

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