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Distinct Islands

Question 584 of 1031

Hard

Given a two-dimensional integer `matrix` of `1`s and `0`s, return the number of distinct "islands" in the matrix. A `1` represents land and `0` represents water, so an island is a group of 1s that are neighboring whose perimeter is surrounded by water. Two islands are distinct if their shapes are different.

Constraints

- `n, m ≤ 100` where `n` and `m` are the number of rows and columns in `matrix`

Example 1

Input

```
matrix = [
    [1, 0, 0, 0, 0],
    [0, 0, 1, 1, 0],
    [0, 1, 1, 0, 0],
    [0, 0, 0, 0, 0],
    [1, 1, 0, 1, 1],
    [1, 1, 0, 1, 1]
]
```

Output

```
3
```

Explanation

This matrix has 4 islands, but only 3 distinct islands since the islands at the bottom are identical.

Solved 273 Attempted 334 Rate 81.74%

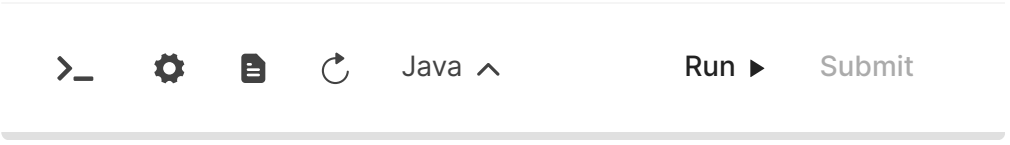
Hint #1 +

Edited by **Aditya_Jaiswal**

```java
import java.util.*;

class Solution {
    public int solve(int[][] matrix) {

    }
}
```


Java
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