

Problem

Submissions

Editorials

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Shortest Bridge

Question 46 of 1025



Hard



Given a two-dimensional list of integers `matrix` containing `0` s and `1` s, `0` represents water and `1` represents land.

An island is a group of connecting `1` s in 4 directions that are either surrounded by `0` s or by the edges. Find the shortest bridge that connects two islands.

It is guaranteed that there are two and only two islands.

Constraints

- `n, m ≤ 250` where `n` and `m` are the number of rows and columns in `matrix`

Example 1

Input

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

Output

```
1
```

Explanation

Either of the two water elements can be used as the bridge.

Example 2

Input

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

```
1 import java.util.*;
2
3 class Solution {
4     public int solve(int[][] matrix) {
5
6     }
7 }
```

Output

3

Explanation

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Run ▶

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