

Description

Solution

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Submissions

## 221. Maximal Square

Medium 3352 88 Add to List Share

Given a 2D binary matrix filled with 0's and 1's, find the largest square containing only 1's and return its area.

**Example:**

**Input:**

```
1 0 1 0 0
1 0 1 1 1
1 1 1 1 1
1 0 0 1 0
```

**Output:** 4

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Seen this question in a real interview before? 

Yes

No

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```
1 class Solution {
2     public int maximalSquare(char[][] matrix) {
3         if (matrix == null || matrix.length == 0) {
4             return 0;
5         }
6         int maxArea = 0;
7         int rows = matrix.length;
8         int cols = matrix[0].length;
9         int[][] dp = new int[rows][cols];
10        for (int i = 0; i < rows; i++) {
11            for (int j = 0; j < cols; j++) {
12                if (matrix[i][j] == '1') {
13                    dp[i][j] = j == 0 ? 1 : dp[i][j - 1] + 1;
14                    int length = dp[i][j];
15
16                    for (int k = i; k >= 0; k--) {
17                        length = Math.min(length, dp[k][j]);
18                        int width = i - k + 1;
19                        if (width == length) {
20                            maxArea = Math.max(maxArea, length * width);
21                        }
22                    }
23                }
24            }
25        }
26        return maxArea;
27    }
28 }
```

Your previous code was restored from your local storage. [Reset to default](#)

Testcase

Run Code Result

Debugger

Accepted

Runtime: 0 ms

Your input

[[ "1", "0", "1", "0", "0"], [ "1", "0", "1", "1", "1"], [ "1", "1", "1", "1", "1"], [ "1", "0", "0", "1", "0"] ]

Output

4

Diff

Expected

4

Console

How to create a testcase

Run Code

Submit