562. Longest Line of Consecutive One in Matrix

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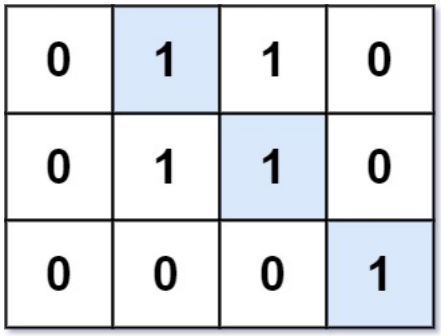
Given an `m x n` binary matrix `mat`, return *the length of the longest line of consecutive one in the matrix*.

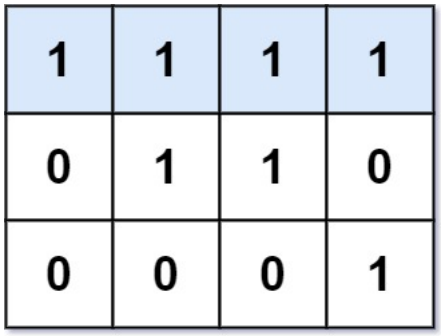
The line could be horizontal, vertical, diagonal, or anti-diagonal.

Example 1:




```
Input: mat = [[0,1,1,0],[0,1,1,0],[0,0,0,1]]
Output: 3
```

Example 2:




```
Input: mat = [[1,1,1,1],[0,1,1,0],[0,0,0,1]]
Output: 4
```

Constraints:

- `m == mat.length`
- `n == mat[i].length`
- `1 <= m, n <= 10^4`
- `1 <= m * n <= 10^4`
- `mat[i][j]` is either `0` or `1`.

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```cpp
class Solution {
public:
    int longestLine(vector<vector<int>>& mat) {

        int n = mat.size();
        int m = mat[0].size();


 vector<vector<vector<int>>> dp(n, vector<vector<int>>(m, vector<int>(4, 0)));
        int maxi = 0;

        for(int i = 0;i<n;i++)
        {

 for(int j=0;j<m;j++)
            {

 if (mat[i][j] == 1)
                {

 dp[i][j][0] = j > 0 ? dp[i][j - 1][0] + 1 : 1;

 dp[i][j][1] = i > 0 ? dp[i - 1][j][1] + 1 : 1;

 dp[i][j][2] = (i > 0 && j > 0) ? dp[i - 1][j - 1][2] + 1 : 1;

 dp[i][j][3] = (i > 0 && j < m - 1) ? dp[i - 1][j + 1][3] + 1 : 1;

 maxi =max(maxi,max(max(dp[i][j][0], dp[i][j][1]), max(dp[i][j][2], dp[i][j][3])));
                }
            }
        }
        return maxi;
    }
};

/*
m-2

class Solution {
  public int longestLine(int[][] M) {
    if (M.le
== 0) return
    int ones
    int[][][] dp =
```

Your previous code was restored fro

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