63. Unique Paths II

Add to List | Question | Editorial Solution | My Submissions (/problems/unique-paths-ii/submissions/)

Total Accepted: **90303** Total Submissions: **291455** Difficulty: **Medium** Contributors: **Admin**

Follow up for "Unique Paths":

Now consider if some obstacles are added to the grids. How many unique paths would there be?

An obstacle and empty space is marked as `1` and `0` respectively in the grid.

For example,

There is one obstacle in the middle of a 3x3 grid as illustrated below.

```
[
  [0,0,0],
  [0,1,0],
  [0,0,0]
]
```

The total number of unique paths is `2`.

Note: *m* and *n* will be at most 100.

Hide Company Tags | Bloomberg (/company/bloomberg/)

Hide Tags | Array (/tag/array/) | Dynamic Programming (/tag/dynamic-programming/)

Hide Similar Problems | (M) Unique Paths (/problems/unique-paths/)

Have you met this question in a real interview? Yes No

Discuss (https://discuss.leetcode.com/category/71) | Top Solutions | Pick One (/problems/random-one-question/)

C++

```cpp
class Solution {
public:
    int uniquePathsWithObstacles(vector<vector<int>>& obstacleGrid) {
        int n = obstacleGrid.size();
        if(n==0) return 0;
        int m = obstacleGrid[0].size();
        if(m==0) return 0;
        if(obstacleGrid[0][0]||obstacleGrid[n-1][m-1]) return 0;

        int dp[m];
        int i,j;

        for(i=1,dp[0]=1;i<m;i++) {
            if(obstacleGrid[0][i]==0) dp[i] = dp[i-1];
            else dp[i]=0;
        }
        for(j=1;j<n;j++){
            if(obstacleGrid[j][0]==1) dp[0]=0;
            for(i=1;i<m;i++)
                if(obstacleGrid[j][i]==1) dp[i] = 0;
                else dp[i]+=dp[i-1];
        }

        return dp[m-1];
    }
};
```

Custom Testcase

Contribute Testcase

Run Code | Submit Solution