063. Unique Paths II

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• Dynamic Programming+Array

Description

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.

1. Thought line

2. Dynamic Programming+Array

```
1 class Solution {
 2 public:
       int uniquePathsWithObstacles(vector<vector<int>>\& obstacleGrid) {
        if (obstacleGrid.empty()) return 0;
          int m = obstacleGrid.size(), n = obstacleGrid[0].size();
 5
 6
          int Possibility [m][n] = {0};
 8
          // initiate Possibility array
 9
           bool flagi = false, flagj = false;
10
           for (int i = 0; i <= m-1; ++i){
11
             if (obstacleGrid[i][0]==1 || flagi){
12
                  flagi = true;
                  Possibility[i][0] = 0;
13
              else if(!flagi)
15
16
                  Possibility[i][0] = 1;
17
18
19
           for (int j = 0; j \le n-1; ++j){
           if (obstacleGrid[0][j]==1 || flagj){
20
21
              flagj = true;
                  Possibility[0][j] = 0;
22
23
              else if (!flagj)
25
                  Possibility[0][j] = 1;
26
27
28
29
           for (int i=1; i <= m-1; ++i){
          for (int j=1; j<=n-1; ++j){
```