

75 Days of Code

Day 63

Problem no : Leetcode 62

Problem Title :Unique Paths

Problem type : DP

There is a robot on an $m \times n$ grid. The robot is initially located at the top-left corner (i.e., $\text{grid}[0][0]$). The robot tries to move to the bottom-right corner (i.e., $\text{grid}[m - 1][n - 1]$). The robot can only move either down or right at any point in time.

Given the two integers m and n , return the number of possible unique paths that the robot can take to reach the bottom-right corner.

The test cases are generated so that the answer will be less than or equal to $2 * 10^9$.

Example 1:

Input: $m = 3, n = 7$

Output: 28

Example 2:

Input: $m = 3, n = 2$

Output: 3

Explanation: From the top-left corner, there are a total of 3 ways to reach the bottom-right corner:

1. Right -> Down -> Down
2. Down -> Down -> Right

3. Down -> Right -> Down

```
24
25 function uniquePaths(m: number, n: number): number {
26     let paths: number[][] = [];
27     for (let row = 1; row <= m; row++) {
28         let colsArr: number[] = [];
29         for (let col = 1; col <= n; col++) {
30             colsArr.push(1);
31         }
32         paths.push(colsArr);
33     }
34
35     for (let row = 1; row < m; row++) {
36         for (let col = 1; col < n; col++) {
37             paths[row][col] = paths[row - 1][col] + paths[row][col - 1];
38             console.log(paths[row][col], "col");
39         }
40     }
41     return paths[m - 1][n - 1];
42 }
43
```

✓ Accepted

Editorial

Runtime

Details

83 ms

Beats 5.29% of users with TypeScript

Memory

49.20 MB

Beats 5.03% of users with TypeScript

