

1 Leetcode64 Minimum Path Sum 二维坐标型动规

笔记本: Dynamic Programing

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64. Minimum Path Sum

难度 中等

300



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题目描述

评论 (322)

题解 (76) ^{New}

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Given a $m \times n$ grid filled with non-negative numbers, find a path from top left to bottom right which *minimizes* the sum of all numbers along its path.

Note: You can only move either down or right at any point in time.

Example:

Input:

```
[
  [1,3,1],
  [1,5,1],
  [4,2,1]
]
```

Output: 7

Explanation: Because the path 1→3→1→1→1 minimizes the sum.

```

2  public int minPathSum(int[][] grid) {
3      int height = grid.length;
4      int width = grid[0].length;
5      int[][] dp = grid;
6      // initialize
7      for( int j = 1; j < width; j++ ) {
8          dp[0][j] += dp[0][j-1];
9      }
10     for( int i = 1; i < height; i++ ) {
11         dp[i][0] += dp[i-1][0];
12     }
13     // dp
14     for( int i = 1; i < height; i++ ) {
15         for( int j = 1; j < width; j++ ) {
16             dp[i][j] += Math.min(dp[i-1][j], dp[i][j-1]);
17         }
18     }
19     for( int i = 0; i < height; i++ ) {
20         System.out.println(Arrays.toString(dp[i]));
21     }
22     return dp[height-1][width-1];
23 }
24

```

您上次编辑到这里，代码已从您浏览器本地的临时存储中恢复了 [还原默认代码模版](#)

测试用例

代码执行结果

已完成 执行用时: 0 ms

输入

[[1,3,1],[1,5,1],[4,2,1]]

输出

7

预期结果

7

stdout

[1, 4, 5]
[2, 7, 6]
[6, 8, 7]