Count Paths

ZPRAC-16-17-Lab9

COUNT PATHS [30 points]

ANNOUNCEMENT:
Up to 20% marks will be allotted for good programming practice. These include
- Comments for non trivial code
- Indentation: align your code properly

Up to 50% marks can be deducted if you do not use recursion

Michelle is stuck in a maze and wants to find the number of paths that exist through the maze (the more the number of paths, the higher her confidence of clearing the maze). The maze is a 2D matrix where '.' denotes path and 'X' denotes wall. Michelle starts at (0,0) and has to reach the bottom-right(both of which will always be '.') Tell her how many paths exist through the maze. Michelle can only go right (eg (0,0) to (0,1)) or down (eg (0,0) to (1,0)) at each step.

Input Format:

Space separated integers m,n denoting size of matrix

Next m lines contain a string of n characters (composed of '.' and 'X')

Output Format:
Number of paths through the maze

Input Constraints:
$1 \leq m,n \leq 5$

For example,
Input:
2 2
..
X.

Output:
1

Input:
3 3
.XX
X..
X..

Output:
0