class Solution(object):

def minPathSum(self, grid):

"""

:type grid: List[List[int]]

:rtype: int

"""

if not grid:

return 0

m,n = len(grid),len(grid[0])

if m==1:

return sum(grid[0])

if n==1:

tol = 0

for i in range(m):

tol+=grid[i][0]

return tol

dp = [[0 for i in range(n)] for i in range(m)]

dp[0][0] = grid[0][0]

for i in range(1,n):

dp[0][i] = dp[0][i-1]+grid[0][i]

for j in range(1,m):

dp[j][0] = dp[j-1][0]+grid[j][0]

for i in range(1,m):

for j in range(1,n):

dp[i][j] = min(dp[i-1][j],dp[i][j-1])+grid[i][j]

#print dp

return dp[-1][-1]