class Solution:

def minPathSum(self, grid: List[List[int]]) -> int:

rows = len(grid)

cols = len(grid[0])

dp = [0] \* cols

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

for col in range(1, cols):

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

for row in range(1, rows):

dp[0] += grid[row][0]

for col in range(1, cols):

dp[col] = min(dp[col], dp[col - 1]) + grid[row][col]

return dp[-1]