

daa.py - C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py (3.12.5)

File Edit Format Run Options Window Help

```
def rob(nums):
    if len(nums) == 1:
        return nums[0]
    def simple_rob(nums):
        rob1, rob2 = 0, 0
        for n in nums:
            rob1, rob2 = rob2, max(rob2, rob1 + n)
        return rob2
    return max(simple_rob(nums[:-1]), simple_rob(nums[1:]))

print(rob([2, 3, 2]))
print(rob([1, 2, 3, 1]))
```

IDLE Shell 3.12.5

File Edit Shell Debug Options Window Help

```
Python 3.12.5 (tags/v3.12.5:ff3bc82, Aug 6 2024, 20:45:27) [MSC v.1940 64 bit (
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py
3
4
>>>
== RESTART: C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py ==
3
4
>>> |
```

Ln: 11 Col: 0

Ln: 1 Col: 14

Type here to search



28°C Partly cloudy 7:18 PM 11/5/2024

daa.py - C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py (3.12.5)

File Edit Format Run Options Window Help

```
def findWays(m, n, N, i, j):
    def dfs(steps, row, col):
        if row < 0 or row >= m or col < 0 or col >= n:
            return 1
        if steps == 0:
            return 0
        return (dfs(steps - 1, row + 1, col) +
                dfs(steps - 1, row - 1, col) +
                dfs(steps - 1, row, col + 1) +
                dfs(steps - 1, row, col - 1))
    return dfs(N, i, j)
print(findWays(2, 2, 2, 0, 0))
print(findWays(1, 3, 3, 0, 1))
```

IDLE Shell 3.12.5

File Edit Shell Debug Options Window Help

```
Python 3.12.5 (tags/v3.12.5:ff3bc82, Aug 6 2024, 20:45:27) [MSC v.1940 6
4 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/monisha D/AppData/Local/Programs/Python/Python312/da
a.py ==
6
12
>>>
```

Ln: 10 Col: 27

Type here to search



28°C Partly cloudy 7:14 PM 11/5/2024

daa.py - C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py (3.12.5)

File Edit Format Run Options Window Help

```
def climbStairs(n):  
    if n <= 2:  
        return n  
    a, b = 1, 2  
    for _ in range(3, n + 1):  
        a, b = b, a + b  
    return b  
print(climbStairs(4))  
print(climbStairs(3))
```

IDLE Shell 3.12.5

File Edit Shell Debug Options Window Help

Python 3.12.5 (tags/v3.12.5:ff3bc82, Aug 6 2024, 20:45:27) [MSC v.1940 64 bit (AMD64)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

```
>>>  
= RESTART: C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py  
5  
3  
>>>
```

Ln: 7 Col: 0

daa.py - C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py (3.12.5)

File Edit Format Run Options Window Help

```
def uniquePaths(m, n):  
    dp = [[1] * n for _ in range(m)]  
    for i in range(1, m):  
        for j in range(1, n):  
            dp[i][j] = dp[i - 1][j] + dp[i][j - 1]  
    return dp[-1][-1]  
print(uniquePaths(7, 3))  
print(uniquePaths(3, 2))
```

IDLE Shell 3.12.5

File Edit Shell Debug Options Window Help

Python 3.12.5 (tags/v3.12.5:ff3bc82, Aug 6 2024, 20:45:27) [MSC v.1940 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

```
>>>  
= RESTART: C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py  
28  
3  
>>>
```

Ln: 6 Col: 21

Type here to search



28°C Partly cloudy 7:20 PM 11/5/2024

daa.py - C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py (3.12.5)

File Edit Format Run Options Window Help

```
def gameOfLife(board):
    m, n = len(board), len(board[0])
    directions = [(-1, 0), (1, 0), (0, -1), (0, 1), (-1, -1), (-1, 1), (1, -1), (1, 1)]
    for i in range(m):
        for j in range(n):
            live_neighbors = sum(0 <= i + x < m and 0 <= j + y < n and abs(board[i + x][j + y]) == 1 for x, y in directions)
            if board[i][j] == 1 and (live_neighbors < 2 or live_neighbors > 3):
                board[i][j] = -1
            if board[i][j] == 0 and live_neighbors == 3:
                board[i][j] = 2
    for i in range(m):
        for j in range(n):
            board[i][j] = 1 if board[i][j] > 0 else 0

board1 = [[0,1,0],[0,0,1],[1,1,1],[0,0,0]]
gameOfLife(board1)
print(board1)
board2 = [[1,1],[1,0]]
gameOfLife(board2)
print(board2)
```

IDLE Shell 3.12.5

File Edit Shell Debug Options Window Help

```
Python 3.12.5 (tags/v3.12.5:ff3bc82, Aug 6 2024, 20:45:27) [MSC v.1940 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>
= RESTART: C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py
[[0, 0, 0], [1, 0, 1], [0, 1, 1], [0, 1, 0]]
[[1, 1], [1, 1]]
>>>
```

Type here to search



28°C Partly cloudy 7:23 PM 11/5/2024

daa.py - C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py (3.12.5)

```
File Edit Format Run Options Window Help
def champagneTower(poured, query_row, query_glass):
    dp = [[0] * k for k in range(1, query_row + 2)]
    dp[0][0] = poured
    for r in range(query_row):
        for c in range(len(dp[r])):
            excess = (dp[r][c] - 1) / 2.0
            if excess > 0:
                dp[r + 1][c] += excess
                dp[r + 1][c + 1] += excess
    return min(1, dp[query_row][query_glass])
print(champagneTower(1, 1, 1))
print(champagneTower(2, 1, 1))
```

IDLE Shell 3.12.5

File Edit Shell Debug Options Window Help

```
Python 3.12.5 (tags/v3.12.5:ff3bc82, Aug 6 2024, 20:45:27) [MSC v.1940 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py
0
0.5
>>> |
```

Ln: 7 Col: 0

daa.py - C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py (3.12.5)

File Edit Format Run Options Window Help

```
def largeGroupPositions(s):  
    result = []  
    i = 0  
    while i < len(s):  
        j = i  
        while j < len(s) and s[j] == s[i]:  
            j += 1  
        if j - i >= 3:  
            result.append([i, j - 1])  
        i = j  
    return result  
print(largeGroupPositions("abbxxxxzzy"))  
print(largeGroupPositions("abc"))
```

IDLE Shell 3.12.5

File Edit Shell Debug Options Window Help

Python 3.12.5 (tags/v3.12.5:ff3bc82, Aug 6 2024, 20:45:27) [MSC v.1940 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

```
>>>  
= RESTART: C:/Users/monisha D/AppData/Local/Programs/Python/Python312/daa.py  
[[3, 6]]  
[]  
>>>
```

Ln: 12 Col: 40

Type here to search



28°C Partly cloudy

7:21 PM
11/5/2024