

138. You are climbing a staircase. It takes n steps to reach the top. Each time you can either climb 1 or 2 steps. In how many distinct ways can you climb to the top?

Examples:

(i) Input: $n=4$ Output: 5

AIM: To find the climbing stairs

PROGRAM:

```
def climbStairs(n):  
    if n == 0:  
        return 1  
  
    if n == 1:  
        return 1  
    dp = [0] * (n + 1)  
    dp[0] = 1  
    dp[1] = 1  
    for i in range(2, n + 1):  
        dp[i] = dp[i - 1] + dp[i - 2]  
    return dp[n]  
  
print(climbStairs(4))
```

OUTPUT:

5

TIME COMPLEXITY: $O(n)$