7. Climbing Stairs

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?

Example: Input: n = 3 Output: 3

// Explanation: There are three ways to climb to the top: 1->1->1, 1->2, and 2->1.

Code

```java
class Solution {
    public int climbStairs(int n) {
        int [] dp = new int[n+1];
        dp[0]=1;
        dp[1]=1;
        for(int i=2;i<=n;i++)
        {
            dp[i]=dp[i-1]+dp[i-2];
        }
        return dp[n];
    }
}
```