



Experiment3.3

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BRANCH-BTECH CSE

SUB- CC LAB

- 1. **Aim:** ⇒ To implement the concept of dynamic programming.

- 2. **Objective:**
 - ⇒ The objective is to build problem solving capability and to learn the basic concepts of data structures.
 - ⇒ The implementation of buy and sell which shows and brushes up the concept of greedy.

- 3. **Leetcode code and output:**

```
□ CLIMBING STAIRS CODE=  
class Solution {    public int climbStairs(int  
n) {        int  
T1=1,T2=1,temp=0;        for  
(int i=0;i<n-1;i++)  
{  
temp=T1;  
T1=T1+T2;  
        T2=temp;  
}  
return  
T1;  
} };
```



OUTPUT=

```
1 class Solution {
2     public int climbStairs(int n) {
3         int T1=1, T2=1, temp=0;
4         for (int i=0; i<n-1; i++)
5             {
6                 temp=T1;
7                 T1=T2+T1;
8                 T2=temp;
9             }
10        return T1;
11    }
```

Accepted

Next question

More challenges

- 746. Min Cost Climbing Stairs
- 2320. Count Number of Ways to Place Houses
- 2400. Number of Ways to Reach a Position After Exactly k Steps

All statuses All languages

Accepted Java

Company Tags

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HARSHIDA SHAILY

Java

Sorry, there are not enough accepted submissions to show data.

Runtime: 0 ms Beats: 100% Memory: 39.4 MB Beats: 69.63%

Click the distribution chart to view more details

Notes

Write your notes here

Console Run Submit



□ BEST TIME TO BUY AND SELL STOCK

CODE

```
class Solution { public:  
    int maxProfit(vector<int>& prices) {  
int low=0;        int maxProfit=0;        for  
(int i=0;i<prices.size();i++)  
        {            if  
(prices[i]<prices[low])  
            {                low=i;            }  
maxProfit=max(maxProfit,prices[i]-prices[low]);  
        }            return  
maxProfit;    } };
```

OUTPUT=

The screenshot displays the LeetCode interface for problem 121, "Best Time to Buy and Sell Stock". The problem is categorized as "Easy" and has 256 likes and 787 comments. The description states: "You are given an array prices where prices[i] is the price of a given stock on the ith day. You want to maximize your profit by choosing a single day to buy one stock and choosing a different day in the future to sell that stock. Return the maximum profit you can achieve from this transaction. If you cannot achieve any profit, return 0." The code editor shows the C++ solution provided in the text above. The "Result" section shows "Accepted" with a runtime of 0ms. The input field contains "prices = [7,1,5,8,4,6]".



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The screenshot displays a LeetCode submission interface. The main content area shows a green checkmark and the word "Accepted" in green. Below this, it lists "Next question" and "More challenges", both pointing to problem 122, "Best Time to Buy and Sell Stock II". The submission details for user MARSHIDA SHAILY are shown, including a C++ language tag, a distribution chart, and performance metrics: Runtime 133 ms (Beats 68.72%) and Memory 93.2 MB (Beats 91.11%). A "Company Tags" popup is open in the top right corner, offering options like "Contribute with us", "Leave a review", and "Become exclusive member". The bottom of the page features a "Console" section with "Run" and "Submit" buttons.