



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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## Experiment 3.3

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**Branch:** BE-CSE

**Section/Group:** 701/A

**Semester:** 6<sup>th</sup>

**Date of Performance:** 2/05/2023

**Subject Name:** Competitive Coding-II

**Subject Code:** 20CSP-351

**Aim:** To demonstrate the concept of Dynamic Programming

### 121. Best Time to Buy and Sell Stock

```
class Solution {
public:
    int maxProfit(vector<int>& prices) {
        int n=prices.size();
        int buyPrice=INT_MAX;
        int maxPrice=0;
        for(int i=0;i<n;i++)
        {
            buyPrice=min(buyPrice,prices[i]);
            maxPrice=max(maxPrice,prices[i]-buyPrice);
        }
        cout<<" Saumyamani Bhardwaz_20BCS1682"<<endl;
        return maxPrice;
    }
};
```

### Output:

Testcase Result

**Accepted** Runtime: 4 ms

• Case 1 • Case 2

Input

prices =  
[7, 1, 5, 3, 6, 4]

Stdout

Saumyamani Bhardwaz\_20BCS1682

Output

5

Console ▾ Run Submit



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## 70. Climbing Stairs

```
class Solution {
public:
    int climbStairs(int n) {
        cout<<"Saumyamani Bhardwaz_20BCS1682"<<endl;
        if(n==1||n==2||n==3)return n;
        int a = 2, b = 3,ans;
        for(int i = 4; i <= n; i++){
            ans = a+b;
            a = b;
            b = ans;
        }
        return b;
    }
};
```

## Output:

Testcase

Result

Case 1

Case 2

Input

n =  
2

Stdout

Saumyamani Bhardwaz\_20BCS1682

Output

2

Expected

Console ▾

Run

Submit