Softnerve Tech Assessment

short line

Rahul Yadav  
12/02/2023

# Code

#include <bits/stdc++.h>

using namespace std;

void findLeaders(vector<int> &v)

{

int n = v.size();

int current\_leader = v[n - 1];

cout << "The Leaders are: ";

cout << current\_leader << " ";

for (int i = n - 2; i >= 0; i--)

{

if (v[i] > current\_leader)

{

current\_leader = v[i];

cout << current\_leader << " ";

}

}

}

int maxProfit(vector<int> &v)

{

int profit = 0;

int lowest\_price = v[0];

int n = v.size();

for (int i = 0; i < n; i++)

{

profit = max(profit,v[i]-lowest\_price);

lowest\_price = min(lowest\_price,v[i]);

}

return profit;

}

int subsetXORSum(vector<int> &nums, int i = 0, int x = 0)

{

if (i == nums.size())

return x;

return subsetXORSum(nums, i + 1, x ^ nums[i]) + subsetXORSum(nums, i + 1, x);

}

int main()

{

vector<int> v\_leaders = {7, 10, 4, 10, 6, 5, 2};

vector<int> v\_stocks = {7, 1, 5, 3, 6, 4};

vector<int> v\_XOR = {1, 3};

findLeaders(v\_leaders);

cout << endl;

cout << "Maximum profit will be: " << maxProfit(v\_stocks);

cout << endl;

cout << "Sum of XOR: " << subsetXORSum(v\_XOR);

return 0;

}

# 

# 

# Output

