

121. Best Time to Buy and Sell Stock

☰ Tags	
📅 Property	@September 15, 2022

Question

原文：

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`.

我的理解：

翻譯：

自評翻譯正確性：

- Word Memory：

Code

```
class Solution {
public:
    int maxProfit(vector<int>& prices) {
        int min=0,i,ca=0;//min往前的最小節點 ca營利

        min=prices[0];//先把第一個節點當作最小節點

        for(i=1;i<prices.size();i++){

            if((prices[i]-min)>ca){//營利如果大於之前的最高營利就更新 一開始的預設是 ca 是 0
                ca=prices[i]-min;
            }
        }
    }
};
```

```

    }

    if(prices[i]<min){//更新目前的最小節點 i繼續往後算就都會是在這個節點之後
        min=prices[i];
    }

}
return ca;
}
};

```

思路：先記錄第一個節點min當最小節點，後續只要遇到更小的節點就更新，因為i只會一直往後，現在能抓到的節點都比後面的位置靠前，ca的部份就記錄目前節點減去前方最小的節點的值，如果比有大於當前ca的就更新。

Success Details >

Runtime: 282 ms, faster than 16.60% of C++ online submissions for Best Time to Buy and Sell Stock.

Memory Usage: 93.4 MB, less than 51.54% of C++ online submissions for Best Time to Buy and Sell Stock.

Next challenges:

Maximum Subarray

Best Time to Buy and Sell Stock II

Best Time to Buy and Sell Stock III

Best Time to Buy and Sell Stock IV

Best Time to Buy and Sell Stock with Cooldown

Sum of Beauty in the Array

Maximum Difference Between Increasing Elements

Maximum Profit From Trading Stocks

Show off your acceptance:



Time Submitted	Status	Runtime	Memory	Language
09/15/2022 22:32	Accepted	282 ms	93.4 MB	cpp

優良code參考

| 思路：