

Best Time to Buy and Sell Stock

122. Best Time to Buy and Sell Stock II

Medium

👍 9656

👤 2470

❤ Add to List

📄 Share

You are given an integer array `prices` where `prices[i]` is the price of a given stock on the i^{th} day.

On each day, you may decide to buy and/or sell the stock. You can only hold **at most one** share of the stock at any time. However, you can buy it then immediately sell it on the **same day**.

Find and return the **maximum** profit you can achieve.

Example 1:

```
Input: prices = [7,1,5,3,6,4]
Output: 7
Explanation: Buy on day 2 (price = 1) and sell on day 3 (price = 5),
profit = 5-1 = 4.
Then buy on day 4 (price = 3) and sell on day 5 (price = 6), profit =
6-3 = 3.
Total profit is 4 + 3 = 7.
```

Example 2:

```
Input: prices = [1,2,3,4,5]
Output: 4
Explanation: Buy on day 1 (price = 1) and sell on day 5 (price = 5),
profit = 5-1 = 4.
Total profit is 4.
```

Example 3:

```
Input: prices = [7,6,4,3,1]
Output: 0
Explanation: There is no way to make a positive profit, so we never
buy the stock to achieve the maximum profit of 0.
```

Constraints:

- $1 \leq \text{prices.length} \leq 3 \times 10^4$
- $0 \leq \text{prices}[i] \leq 10^4$