

Stock Buy and Sell – Multiple Transaction Allowed

Difficulty: **Medium**Accuracy: **13.43%**Submissions: **144K+**Points: **4**

The cost of stock on each day is given in an array **price[]**. Each day you may decide to either buy or sell the stock **i** at **price[i]**, you can even buy and sell the stock on the same day. Find the **maximum profit** that you can get.

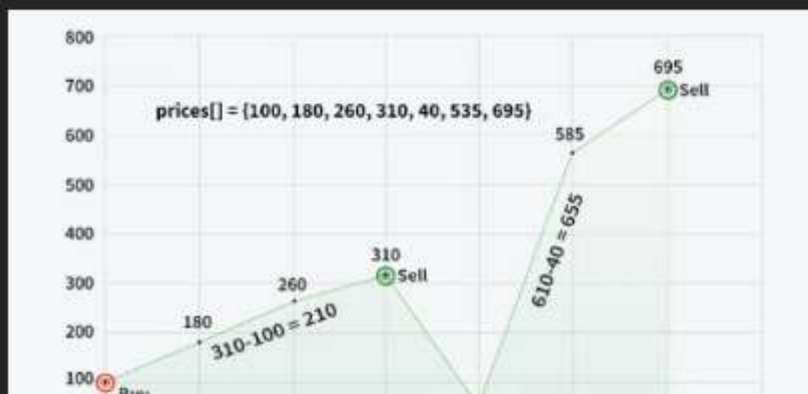
Note: A stock can only be sold if it has been bought previously and multiple stocks cannot be held on any given day.

Examples:

Input: prices[] = [100, 180, 260, 310, 40, 535, 695]

Output: 865

Explanation: Buy the stock on day 0 and sell it on day 3 => $310 - 100 = 210$. Buy the stock on day 4 and sell it on day 6 => $695 - 40 = 655$.
Maximum Profit = $210 + 655 = 865$.



```
1 // } Driver Code Ends
38
39
40 // User function Template for Java
41 class Solution {
42     public int maximumProfit(int prices[]) {
43         int n = prices.length;
44         if (n == 0)
45             return 0;
46         int maxProfit = 0;
47         for(int i = 1; i < n ; i++){
48             if(prices[i] > prices[i-1]){
49                 maxProfit += prices[i] - prices[i-1];
50             }
51         }
52         return maxProfit;
53     }
54 }
```

