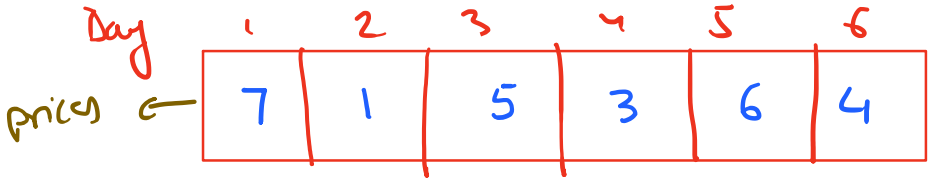
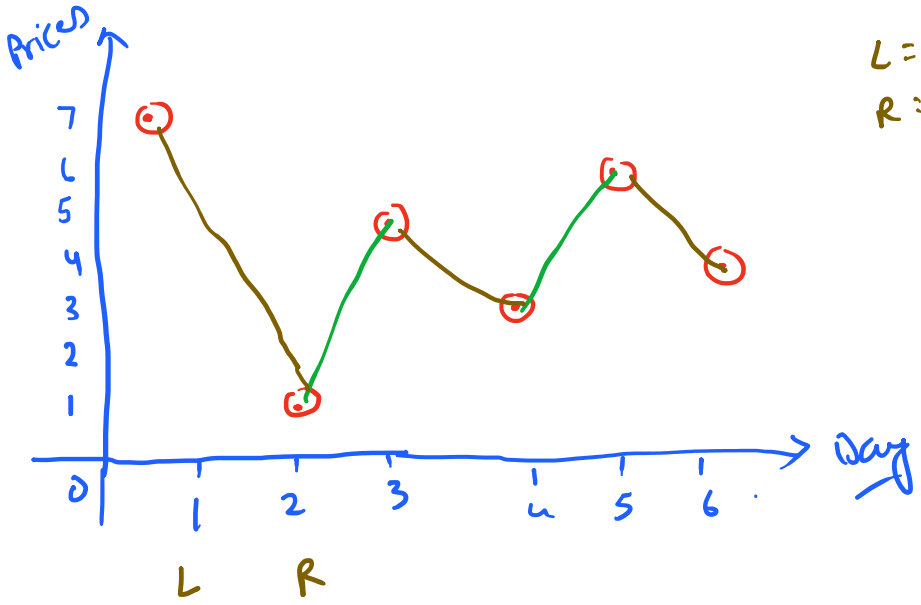
Solution

Saturday, 6 May 2023 12:52 PM





L = left = Buy
R = Right = Sell
Profit = R - L

Approach:-

0) let's make maxProft = 0 in the starting → it's a global variable
1) We will initialize L & R = 0 and 1 respectively
2) we will compute (R-L)

3) if (R-L) > 0 → that means we have made profit
then,
let's calculate the new profit
newProfit = R-L
maxProfit = max(maxProfit, newProfit)

4) else: → when we have Loss [(R-L) < 0]
then,
update L to R

5) increment R by 1

6) Repeat steps (2) to (5) till R reaches the end of the list.

```python
prices = [7,1,5,3,6,4]
def maximumProfit(prices):
    maxProfit = 0
    L = 0 # L -> Buy
    R = 1 # R -> Sell
    while R < len(prices):
        # when we are making profit
        if prices[R] > prices[L]:
            newProfit = prices[R] - prices[L]
            maxProfit = max(maxProfit, newProfit)

        # when we are making loss or no profit
        else:
            L = R

        R += 1

    return maxProfit
print(maximumProfit(prices))
```