Python DSA

https://github.com/im-amit-kumar/Python-DSA/tree/main/Day-5

1. **Leetcode 121 Best Time to Buy and Sell Stock**

https://leetcode.com/problems/best-time-to-buy-and-sell-stock/description/

Optimal

```python
class Solution:
    def maxProfit(self, prices: List[int]) -> int:
        max_profit=0
        min_price= float("inf")
        for i in range(len(prices)):
            min_price = min(min_price, prices[i])
            max_profit = max(max_profit, prices[i]- min_price)
        return max_profit
```

TC- O(N)

SC- O(1)

2. **Leetcode 2149 Rearrange Array Elements by Sun**

https://leetcode.com/problems/rearrange-array-elements-by-sign/description/

Optimal Solution

```python
class Solution:
    def rearrangeArray(self, nums: List[int]) -> List[int]:
        n = len(nums)
        ans = [0] * n
        posIndex, negIndex = 0, 1
        for i in range(n):
            if nums[i] < 0:
                ans[negIndex] = nums[i]
                negIndex += 2
            else:
                ans[posIndex] = nums[i]
                posIndex += 2
        return ans
```

```
TC - O(N)
SC - O(N)
```