

1403. Minimum Subsequence in Non-Increasing Order

Given the array `nums`, obtain a subsequence of the array whose sum of elements is **strictly greater** than the sum of the non included elements in such subsequence.

If there are multiple solutions, return the subsequence with **minimum size** and if there still exist multiple solutions, return the subsequence with the **maximum total sum** of all its elements. A subsequence of an array can be obtained by erasing some (possibly zero) elements from the array.

Note that the solution with the given constraints is guaranteed to be **unique**. Also return the answer sorted in **non-increasing** order.

Example 1:

Input: `nums = [4,3,10,9,8]`

Output: `[10,9]`

Explanation: The subsequences `[10,9]` and `[10,8]` are minimal such that the sum of their elements is strictly greater than the sum of elements not included, however, the subsequence `[10,9]` has the maximum total sum of its elements.

Example 2:

Input: `nums = [4,4,7,6,7]`

Output: `[7,7,6]`

Explanation: The subsequence `[7,7]` has the sum of its elements equal to 14 which is not strictly greater than the sum of elements not included ($14 = 4 + 4 + 6$).

Therefore, the subsequence `[7,6,7]` is the minimal satisfying the conditions.

Note the subsequence has to returned in non-decreasing order.

Example 3:

Input: `nums = [6]`

Output: `[6]`

```
def minSubsequence(self, nums: List[int]) -> List[int]:
    nums.sort()
    Sum = sum(nums)
    x = 0
    temp = []
    for i in range(len(nums)-1, -1, -1):
```

```
x += nums[i]
temp.append(nums[i])
if x > Sum - x:
    return temp
```