34. Find First and Last Position of Element in Sorted Array - Copy

Given an array of integers `nums` sorted in ascending order, find the starting and ending position of a given `target` value.

If `target` is not found in the array, return `[-1, -1]`.

You must write an algorithm with `O(log n)` runtime complexity.

Example 1:

Input: nums = [5,7,7,8,8,10], target = 8
Output: [3,4]

Example 2:

Input: nums = [5,7,7,8,8,10], target = 6
Output: [-1,-1]

Example 3:

Input: nums = [], target = 0
Output: [-1,-1]

```python
def searchRange(self, nums: List[int], target: int) -> List[int]:
    i = self.firstOccurrence(nums,target)
    j = self.lastOccurrence(nums,target)
    return i,j
def firstOccurrence(self,arr,x):
    lo = 0
    hi = len(arr)-1
    res = -1
    while lo<=hi:
        mid = lo + (hi-lo)//2
        if arr[mid]==x:
            hi = mid-1
            res = mid
        elif arr[mid]>x:
            hi = mid-1
        else:
```

```python
            lo = mid+1
    return res


def lastOccurrence(self,arr,x):
    lo = 0
    hi = len(arr)-1
    res = -1
    while lo<=hi:
        mid = lo + (hi-lo)//2
        if arr[mid]==x:
            lo = mid+1
            res = mid
        elif arr[mid]>x:
            hi = mid-1
        else:
            lo = mid+1
    return res
```