131 . You have an algorithm that process a list of numbers. It firsts sorts the list using an efficient sorting algorithm and then finds the maximum element in sorted list. Write the code for the same.

1. You have an algorithm that process a list of numbers. It firsts sorts the list using an efficient sorting algorithm and then finds the maximum element in sorted list. Write the code for the same.
   Test Cases
   1. Empty List
      1. Input: []
      2. Expected Output: None or an appropriate message indicating that the list is empty.
   2. Single Element List
      1. Input: [5]
      2. Expected Output: 5

AIM:To sorting algorithm and then finds the maximum elements in soretd list

PROGRAM:

```
def find_maximum_after_sorting(nums):
    if not nums:
        return None  # Return None for empty list

    nums_sorted = sorted(nums)  # Sort the list

    return nums_sorted[-1]  # Return the last element (maximum) from the sorted list
nums1 = []
print(find_maximum_after_sorting(nums1))

nums2 = [5]
print(find_maximum_after_sorting(nums2))
```

OUTPUT:

```
None
5
```

TIME COMPLEXITY: O(n log n)