**1.6** 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.

**AIM**:

To sort a list of integers efficiently and return the maximum element from the sorted list, while handling edge cases properly.

**ALGORITHM:**

1. If the list is empty, return None or print a message.

2. Sort the list using an efficient algorithm (O(n log n)).

3. Return the last element (which is the maximum).

**PROGRAM:**

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AI-generated content may be incorrect.

Input:

nums = [0, 1, 2, 5]

Output:

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AI-generated content may be incorrect.

**RESULT:**

Thus the program to find maximum element from the sorted list is successfully executed, and the output is verified.

**PERFORMANCE ANALYSIS:**

* Sorting → O(n log n)

• Accessing last element → O(1)

• Total: O(n log n)

• Space: O(1) (in-place sort) or O(n) (depending on sorting algorithm).