Problem 164: Maximum Gap

Problem Information

Difficulty: Medium
Acceptance Rate: 50.74%
Paid Only: No
Tags: Array, Sorting, Bucket Sort, Radix Sort

Problem Description

Given an integer array `nums`, return _the maximum difference between two successive elements in its sorted form_. If the array contains less than two elements, return `0`.

You must write an algorithm that runs in linear time and uses linear extra space.

Example 1:

Input: nums = [3,6,9,1] **Output:** 3 **Explanation:** The sorted form of the array is [1,3,6,9], either (3,6) or (6,9) has the maximum difference 3.

Example 2:

Input: nums = [10] **Output:** 0 **Explanation:** The array contains less than 2 elements, therefore return 0.

Constraints:

* `1 <= nums.length <= 105` * `0 <= nums[i] <= 109`

Code Snippets

C++:

```
class Solution {
public:
```

```
int maximumGap(vector<int>& nums) {

}
};
```

Java:

```
class Solution {
public int maximumGap(int[] nums) {

}
}
```

Python3:

```
class Solution:
def maximumGap(self, nums: List[int]) -> int:
```