128. Longest Consecutive Sequence

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Difficulty	Medium
LC Url	https://leetcode.com/problems/longest-consecutive-sequence/
Importance	
Tag	Array&Sorting Hashmap NEET
Video	https://www.youtube.com/watch?v=P6RZZMu_maU

Given an unsorted array of integers `nums`, return *the length of the longest consecutive elements sequence.*

You must write an algorithm that runs in `O(n)` time.

Example 1:

```
Input: nums = [100,4,200,1,3,2]
Output: 4
Explanation: The longest consecutive elements sequence is[1, 2, 3, 4]. Therefore its lengt
h is 4.
```

Example 2:

```
Input: nums = [0,3,7,2,5,8,4,6,0,1]
Output: 9
```

Constraints:

- `0 <= nums.length <= 10 5`
- `10 9 <= nums[i] <= 10 9`

Solution

```
class Solution:
    def longestConsecutive(self, nums: List[int]) -> int:
        numSet = set(nums)
        longest = 0

        for n in nums:
            if (n - 1) not in numSet:
                length = 0
                while (n + length) in numSet:
                    length += 1
                longest = max(length, longest)
        return longest
```