

## 128. Longest Consecutive Sequence

- 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 length is 4.

### Example 2:

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

### Constraints:

- $0 \leq \text{nums.length} \leq 10^5$
- $-10^9 \leq \text{nums}[i] \leq 10^9$