LONGEST CONSECUTIVE SEQUENCE

LANGUAGE: JAVA

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

IDEAS:

->Sorting the array will arrange the numbers either in ascending or descending order.

->Now,It becomes easy for us to find the consecutive numbers.

->If number gets repeated continue the loop or else use the loop and check the present number with the next number in the array by one and increment the count.

SOLUTION:

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

      int n=nums.length;

      Arrays.sort(nums);
      int count=0;
      int x=0;

      if(n==0)
      {
         return 0;
      }
      if(n==1)
      {
         return 1;
      }
      for(int i=1;i<n;i++)
      {
         if(nums[i]==nums[i-1])
         {
            continue;
         }
         else if(nums[i]-1==nums[i-1])
         {
            count++;
            x=Math.max(x,count);
         }
         else
         {
            count=0;
```

```
        }

      }
   return x+1;

   }
}
```