Day-1: Problem-1

Thursday, April 25, 2024 5:30 PM

Question :→ Contains Duplicate (LeetCode)

[1, 2, 3, 4], [1, 1, 2, 2, 3, 4]

↓ false

↓ true } boolean

Sort :→ [1, 2, 3, 4, 1,] ⇒ 1, 1, 2, 3, 4

arr[i] == arr[i+1]

// i < size(arr) - 1

```
int n = arr.size()
sort(arr.begin(), arr.end())
for (int i=0; i<n-1; i++)
    ( arr[i] == arr[i+1])
return true
```

```
for (int i=0; i<n-1; i++)
{
    if (arr[i] == arr[i+1])
    {
        return true;
    }
}
return false;
```

TC :→ sort ⇒ $n \log n$

\+

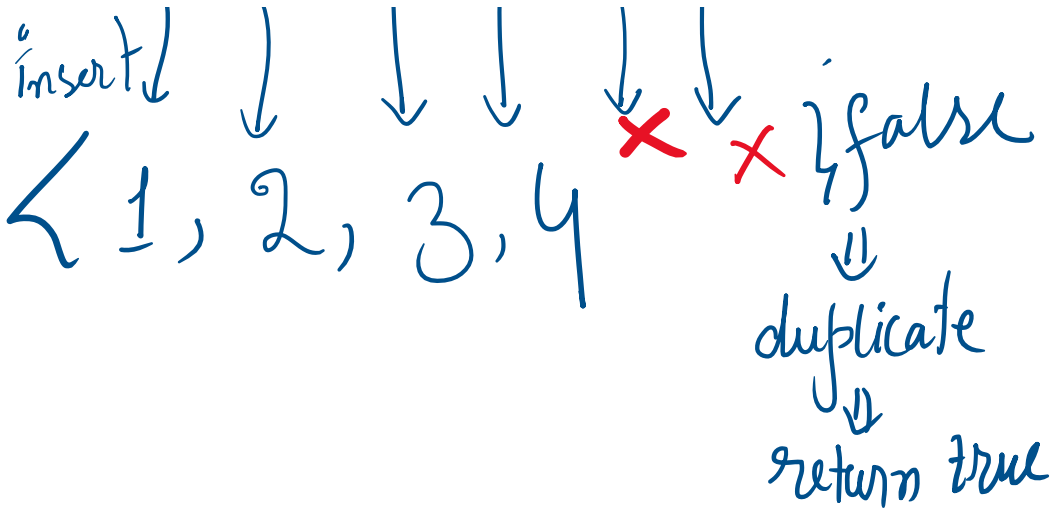
n ⇒ $O(n \log n)$

Approach – 2

↳ "HashSet"

[1, 2, 3, 4, 1, 2]

insert( ) | | | | |



* Problems around duplicate
then apply ⇒ "HashSet"

Soln.

```
unordered_set<int> intSet;
for (int x : nums)
{
  //check duplicates
  if (intSet.find(x) != intSet.end()
  { return true;
  }
  else { intSet.insert(x);
```

use {
    inset.insert(x);
}
}
return false;

Video Link-1: [Contains Duplicate (LeetCode 217) | Full solution with HashSet explanation | Study Algorithms]

Video Link-2: [Contains Duplicate - Leetcode 217 - Python]