

75 Days of Code Day 21 Problem no: 1207. Unique Number of Occurrences

Type Hashmap /Sets

Given an array of integers arr, return true if the number of occurrences of each value in the array is unique or false otherwise.

Example 1:

Input: arr = [1,2,2,1,1,3]

Output: true

Explanation: The value 1 has 3 occurrences, 2 has 2 and 3 has 1. No two values have the same number of occurrences.

Example 2:

Input: arr = [1,2]

Output: false

Example 3:

Input: arr = [-3,0,1,-3,1,1,1,-3,10,0]

Output: true

Solution of the above problem using Brute force approach

1. Create a array of unique elements
2. Start a loop in the unique element , inside the loop create a nested loop for original array , on each iteration we are adding the count of unique element if `uniqueArr[indexPointer] === arr[index]` , when the for loop end we push this count to a new array named as countArr

3. After the end of both loop ,we create a new array of unique counts of the countArray of all the element before
4. We compare both and return result

```
function uniqueOccurrences(arr: number[]): boolean {
  let uniqueElement = new Set(arr);
  let uniqueArray = [...uniqueElement];
  let indexPointer = 0;
  let countArr: number[] = [];
  while (indexPointer < uniqueArray.length) {
    let count = 0;
    for (let index = 0; index < arr.length; index++) {
      if (uniqueArray[indexPointer] === arr[index]) {
        count++;
      }
    }
    countArr.push(count);
    indexPointer++;
  }

  let countUnique = new Set(countArr);

  return countArr.length === countUnique.size;
}

let answer1 = uniqueOccurrences([1, 2, 2, 1, 1, 3]);
console.log("Answer : ", answer1);
```

Solution of above problem using in Optimize way using map and set

1. Using map can solve this problem with single loop instead of nested loop
2. Initialize an empty has map and start a loop to the array given to us
3. Here we are adding map key as unique element and their value as count
4. After the loop end , we initialize an empty array
5. We push the count of map key in this array by checking the repetition of number , if any number repeats it will return false else true after loop ends

```
...  README.md  TS day21.ts 1, U X  JS day21.js 9+, U

TS day21.ts > ...
39  function uniqueOccurrences1(arr: number[]): boolean {
40      let ms = new Map();
41      for (let i = 0; i < arr.length; i++) {
42          ms.set(arr[i], 1 + ms.get(arr[i] || 0));
43      }
44      let vals: number[] = [];
45
46      for (let [key, value] of ms) {
47          if (vals.includes(value)) {
48              return false;
49          }
50          vals.push(value);
51      }
52      return true;
53  }
54  let answer1 = uniqueOccurrences1([1, 2, 2, 1, 1, 3]);
55  console.log("Answer : ", answer1);
56
```

Testcase

Result

• Case 1

• Case 2

• Case 3

Input

```
arr =  
[1,2,2,1,1,3]
```

Output

```
true
```

Expected

```
true
```

♥ Contril