75 Days of Code

Day 20 Problem no: 2215. Find the Difference of Two Arrays (leetcode)
Type - Hashmap/Set

Given two 0-indexed integer arrays nums1 and nums2, return a list answer of size 2 where:

answer[0] is a list of all distinct integers in nums1 which are not present in nums2.
answer[1] is a list of all distinct integers in nums2 which are not present in nums1.
Note that the integers in the lists may be returned in any order.

Example 1:

Input: nums1 = [1,2,3], nums2 = [2,4,6]
Output: [[1,3],[4,6]]
Explanation:
For nums1, nums1[1] = 2 is present at index 0 of nums2, whereas nums1[0] = 1 and nums1[2] = 3 are not present in nums2. Therefore, answer[0] = [1,3].
For nums2, nums2[0] = 2 is present at index 1 of nums1, whereas nums2[1] = 4 and nums2[2] = 6 are not present in nums2. Therefore, answer[1] = [4,6].
Example 2:

Input: nums1 = [1,2,3,3], nums2 = [1,1,2,2]
Output: [[3],[]]
Explanation:
For nums1, nums1[2] and nums1[3] are not present in nums2. Since nums1[2] == nums1[3], their value is only included once and answer[0] = [3].
Every integer in nums2 is present in nums1. Therefore, answer[1] = [].

Solution of the above problem using set and filter method

1. Converting given two num arrays into set which will remove the duplicates
2. Using filter method removing the common element in both array

Shubham Agrahari

```
// Every integer in nums2 is present in nums1. Therefore, answer[1] = [].

function findDifference(nums1: number[], nums2: number[]): number[][] {
  const num1Set = new Set(nums1);
  const num2Set = new Set(nums2);

  return [
    [...num1Set].filter((num) => !num2Set.has(num)),
    [...num2Set].filter((num) => !num1Set.has(num)),
  ];
}

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

Input

nums1 =

```
[1,2,3]
```

nums2 =

```
[2,4,6]
```

Output

```
[[1,3],[4,6]]
```

Expected

```
[[1,3],[4,6]]
```

Shubham Agrahari

Shubham Agrahari