**1.2** You are given two integer arrays nums1 and nums2 of sizes n and m, respectively. Calculate the following values: answer1 : the number of indices i such that nums1[i] exists in nums2. answer2 : the number of indices i such that nums2[i] exists in nums1 Return [answer1,answer2].

**AIM:**

To find how many elements of one array exist in the other array and return the counts as [answer1, answer2].

**ALGORITHM:**

1. Store the elements of nums1 in a set set1 for fast lookup.

2. Store the elements of nums2 in a set set2.

3. Initialize answer1 = 0, answer2 = 0.

4. Traverse each element in nums1:

• If the element exists in set2, increment answer1.

5. Traverse each element in nums2:

• If the element exists in set1, increment answer2.

6. Return [answer1, answer2].

**PROGRAM**:

A screenshot of a computer code

AI-generated content may be incorrect.

Input:

nums1 = [2,3,2]

nums2 = [1,2]

Output:

A screenshot of a computer program

AI-generated content may be incorrect.

**RESULT**:

Thus,to find the number of elements in one array exist in the other array program is successfully executed, and the output is verified.

**PERFORMANCE ANALYSIS:**

• Time Complexity:

• Creating sets → O(n + m)

• Checking membership → O(n + m)

• Total: O(n + m)

* Space Complexity:

• Two sets storing up to n + m elements → O(n + m)