17. Given two integer arrays nums1 and nums2, return an array of their intersection. Each element in the result must appear as many times as it shows in both arrays and you may return the result in any order.

Program:

```
def intersection(nums1, nums2):
    # Count occurrences of each element in both arrays
    count1 = {}
    count2 = {}
    for num in nums1:
        count1[num] = count1.get(num, 0) + 1
    for num in nums2:
        count2[num] = count2.get(num, 0) + 1

    # Find the intersection of elements
    intersection_list = []
    for num in count1:
        if num in count2:
            intersection_list.extend([num] *
min(count1[num], count2[num]))

    return intersection_list

# Example usage
nums1 = [1, 2, 2, 1]
nums2 = [2, 2]
result = intersection(nums1, nums2)
print("Intersection of nums1 and nums2:", result)
```

Output:

```
"C:\Program Files\Python312\python.exe" "C:\Work Space\DAA COADS.PYTHON\program 17.py"
Intersection of nums1 and nums2: [2, 2]

Process finished with exit code 0
```

Time complexity:
O(n+k)