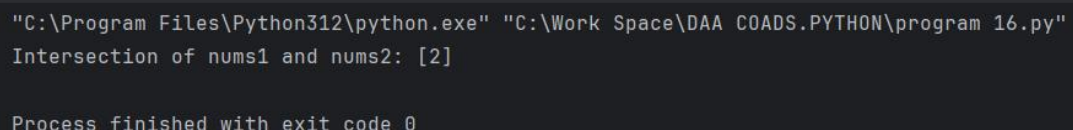


16. Given two integer arrays nums1 and nums2, return an array of their Intersection. Each element in the result must be unique and you may return the result in any order.

Program:

```
def intersection(nums1, nums2):  
    # Convert arrays to sets for faster lookup  
    set1 = set(nums1)  
    set2 = set(nums2)  
  
    # Find the intersection of the sets  
    intersection_set = set1.intersection(set2)  
  
    # Convert the intersection set back to a list  
    intersection_list = list(intersection_set)  
  
    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 16.py"  
Intersection of nums1 and nums2: [2]  
  
Process finished with exit code 0
```

Time complexity:

$O(n+k)$

