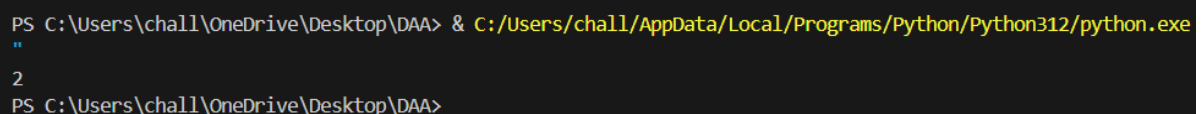


**31. Counting Elements** Given an integer array arr, count how many elements x there are, such that  $x + 1$  is also in arr. If there are duplicates in arr, count them separately. Example Input: arr = [1,2,3] Output: 2 Explanation: 1 and 2 are counted cause 2 and 3 are in arr.

**PROGRAM:**

```
def count_elements(arr):  
    count = 0  
    num_set = set(arr)  
    for x in arr:  
        if x + 1 in num_set:  
            count += 1  
    return count  
arr1 = [1, 2, 3]  
print(count_elements(arr1))
```

**OUTPUT:**



```
PS C:\Users\chall\OneDrive\Desktop\DAA> & C:/Users/chall/AppData/Local/Programs/Python/Python312/python.exe "  
2  
PS C:\Users\chall\OneDrive\Desktop\DAA>
```

**TIME COMPLEXITY:**

Time complexity for the above code is

$f(n)=O(n)$