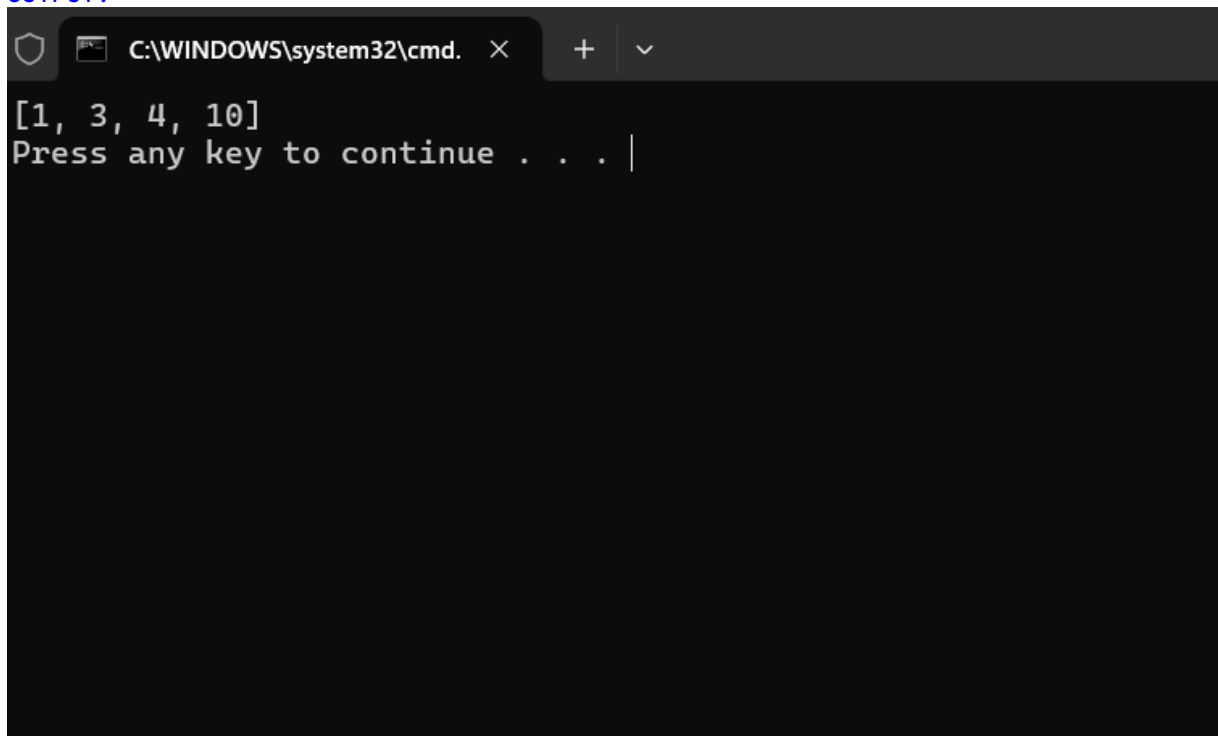


48) Merge Sorted Array You are given two integer arrays `nums1` and `nums2`, sorted in non-decreasing order, and two integers `m` and `n`, representing the number of elements in `nums1` and `nums2` respectively. Merge `nums1` and `nums2` into a single array sorted in non-decreasing order. The final sorted array should not be returned by the function, but instead be stored inside the array `nums1`. To accommodate this, `nums1` has a length of `m + n`, where the first `m` elements denote the elements that should be merged, and the last `n` elements are set to 0 and should be ignored. `nums2` has a length of `n`.

CODE:

```
def sort(a,b):
    a.sort()
    b.sort()
    c=[]
    for i in range(len(a)):
        c.append(a[i])
    for i in range(len(b)):
        c.append(b[i])
    return c
a=[3,1]
b=[10,4]
print(sort(a,b))
OUTPUT:
```

A screenshot of a Windows Command Prompt window. The title bar shows the path 'C:\WINDOWS\system32\cmd.' with a close button. The window has a dark background. The output of the program is displayed in white text: '[1, 3, 4, 10]' followed by 'Press any key to continue . . . |' with a cursor. The rest of the window is empty.

TIME COMPLEXITY : $O(m+n)$