

47) . Remove Duplicates from Sorted List Given the head of a sorted linked list, delete all duplicates such that each element appears only once. Return the linked list sorted as well.

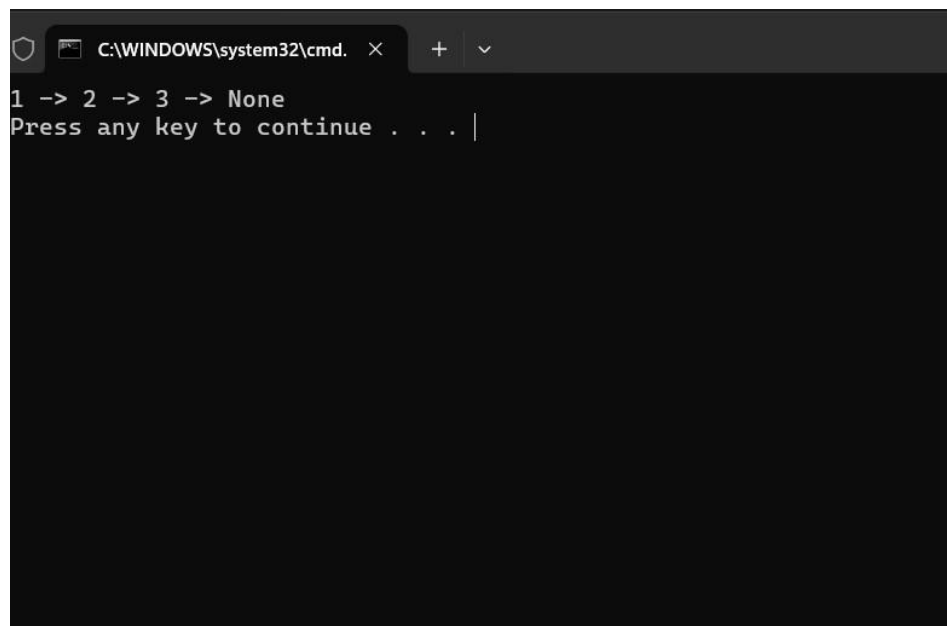
CODE: class ListNode:

```
    def __init__(self, val=0, next=None):
self.val = val      self.next = next
    def deleteDuplicates(head):    current =
head    while current and current.next:
if current.val == current.next.val:
current.next = current.next.next    else:
current = current.next    return head
    def create_linked_list(lst):
    dummy = ListNode()    current
= dummy    for val in lst:
current.next = ListNode(val)
current = current.next    return
dummy.next
```

```
# Helper function to print a linked list
def print_linked_list(node):    result =
[]    while node:
result.append(str(node.val))    node
= node.next
    print(" -> ".join(result) + " -> None")
```

```
head = create_linked_list([1, 1, 2, 3, 3])
new_head = deleteDuplicates(head)
print_linked_list(new_head)
```

OUTPUT:



A screenshot of a Windows command prompt window. The title bar shows the path `C:\WINDOWS\system32\cmd.` with a close button. The command prompt displays the output of a program: `1 -> 2 -> 3 -> None` followed by a prompt `Press any key to continue . . . |`. The rest of the window is black.

TIME COMPLEXITY : $O(n)$