

# REVERSE K-GROUP

K = 2

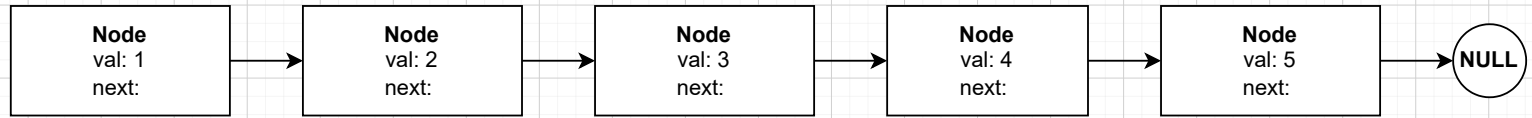
PROBLEM STATEMENT

slow

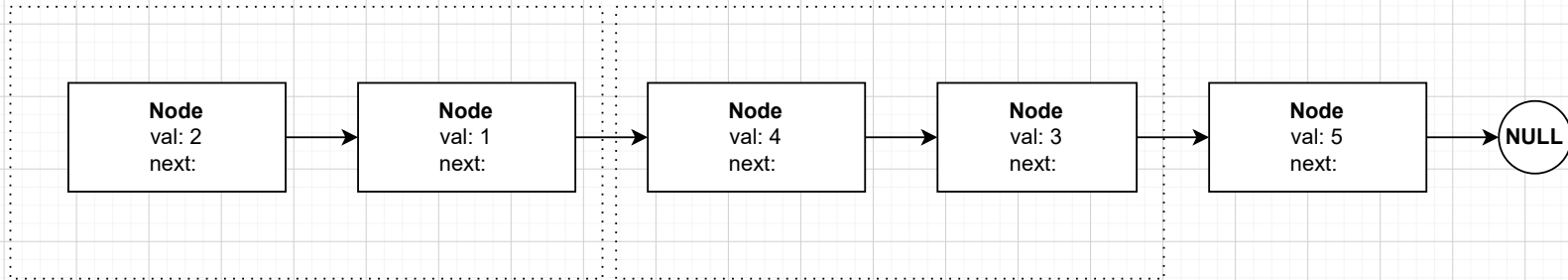
fast

head

INPUT:

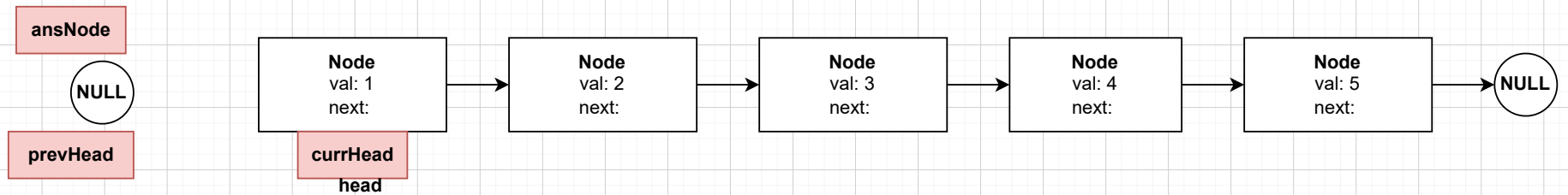
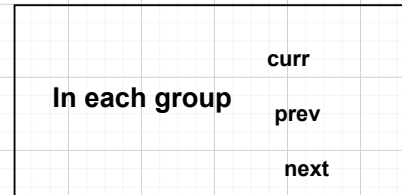


OUTPUT



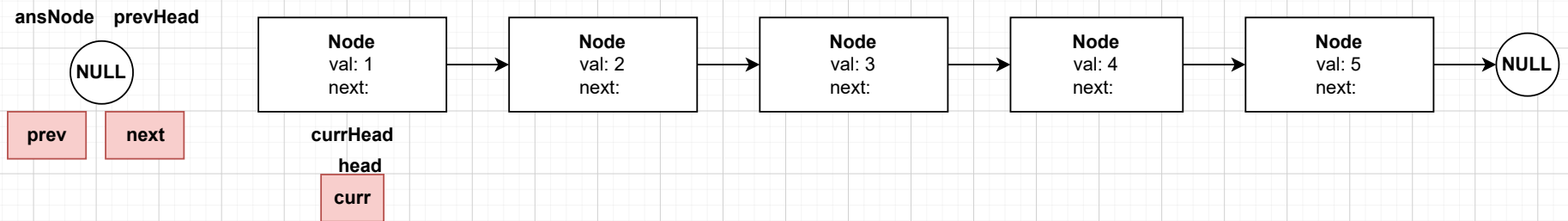
INIT VALUES:

ansNode → NULL  
currHead → head  
prevHead → NULL  
head



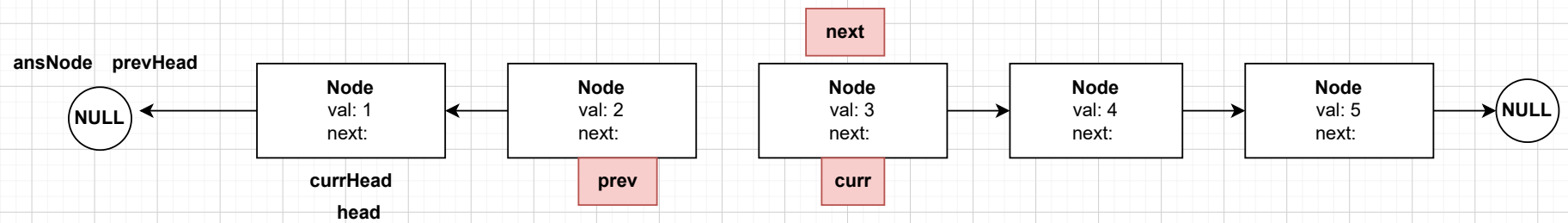
### For Each Group (K)

```
ListNode prev = null;  
ListNode curr = currHead;  
ListNode next = null;
```

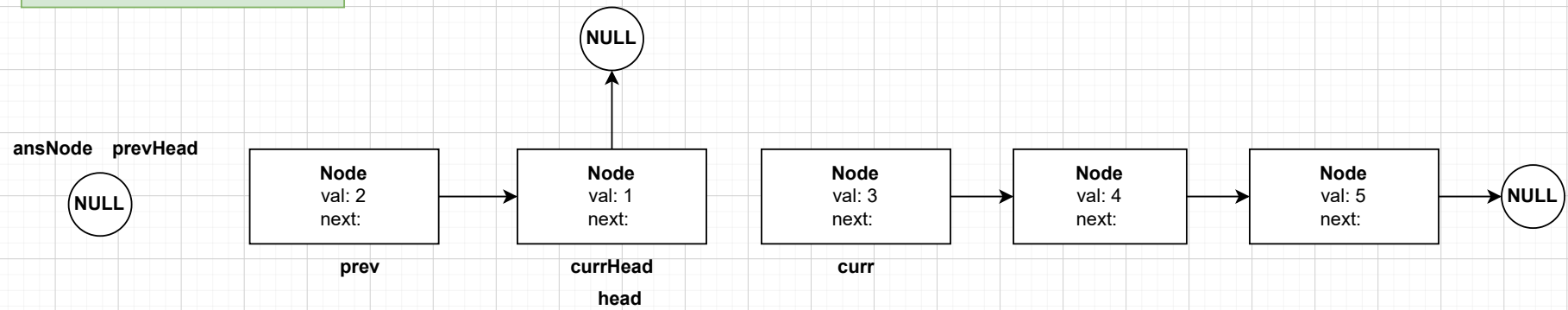


### Reversing Each Group (K)

```
next = curr.next;  
curr.next = prev;  
prev = curr;  
curr = next;
```



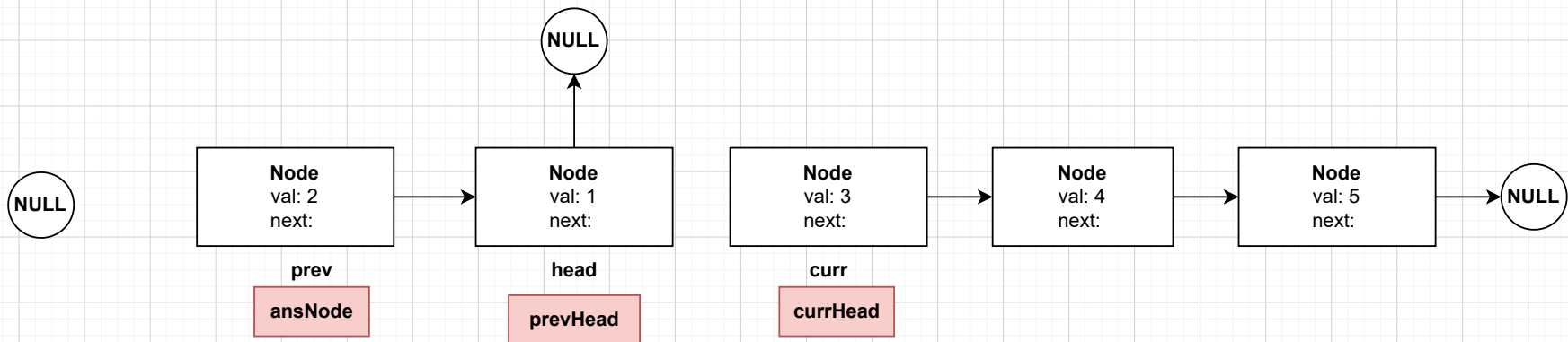
This is equivalent to ==>



After Reversing elemnts in K-group

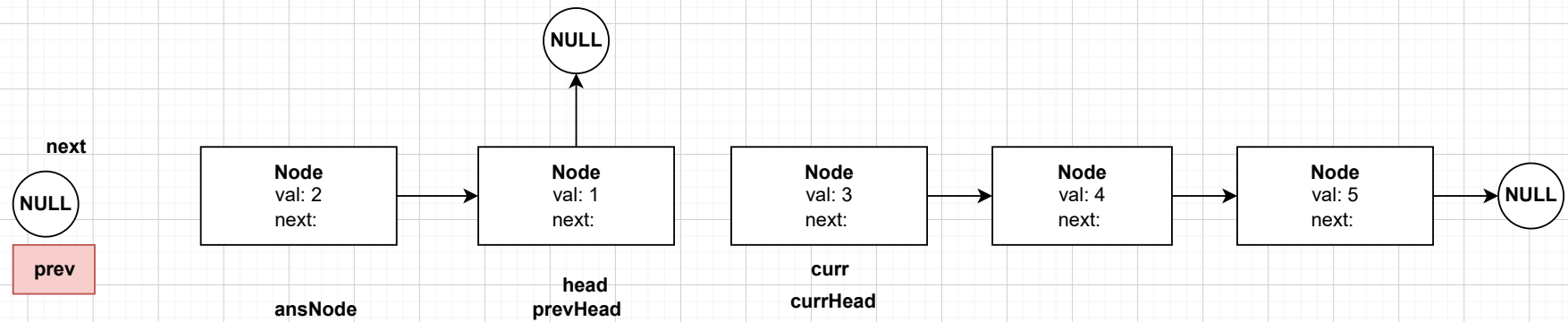
```
if(prevHead == null) {  
    ansNode = prev;  
} else {  
    prevHead.next = prev;  
}
```

```
prevHead = currHead;  
currHead = curr;
```



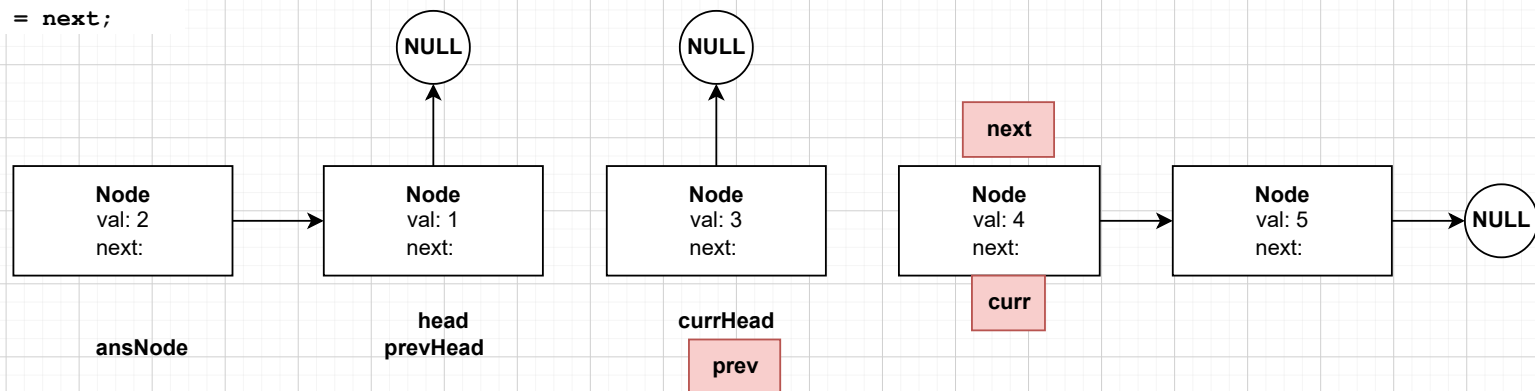
For Each Group (K) [2nd iteration]

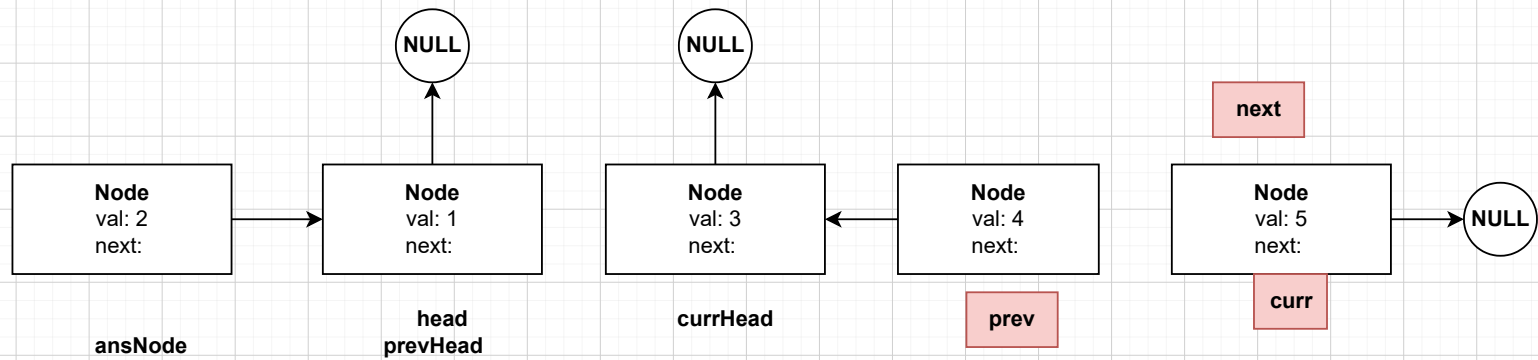
```
ListNode prev = null;  
ListNode curr = currHead;  
ListNode next = null;
```



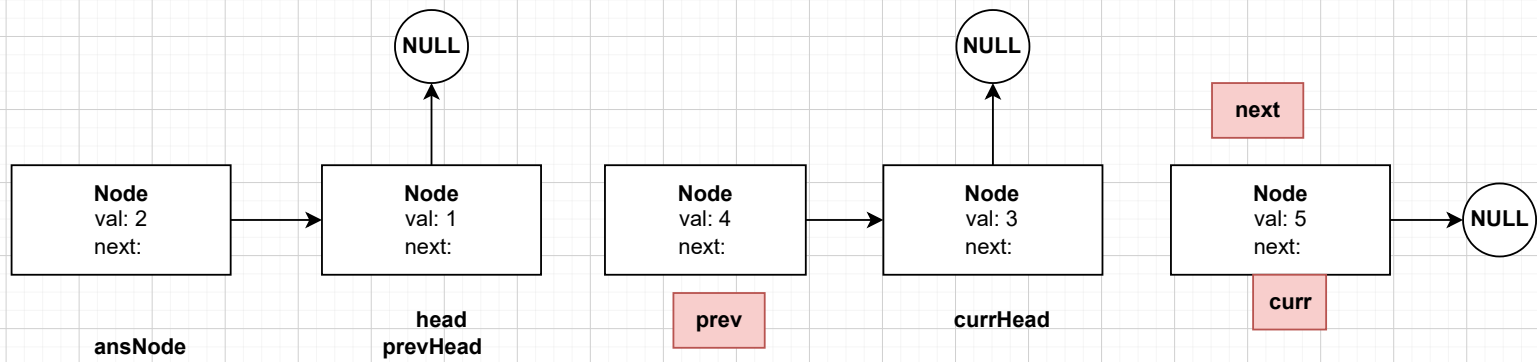
Reversing Each Group  
(K)

```
next = curr.next;  
curr.next = prev;  
prev = curr;  
curr = next;
```





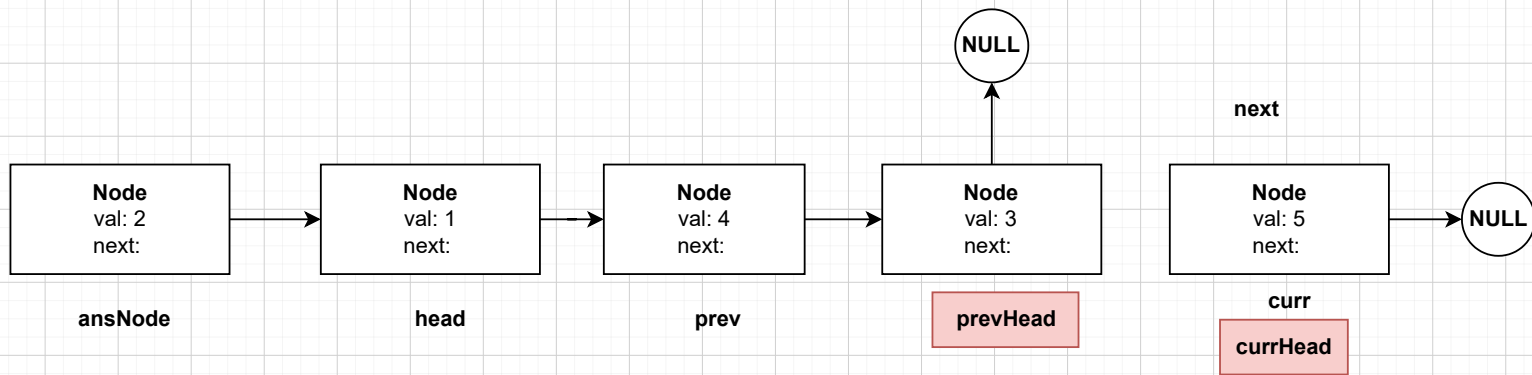
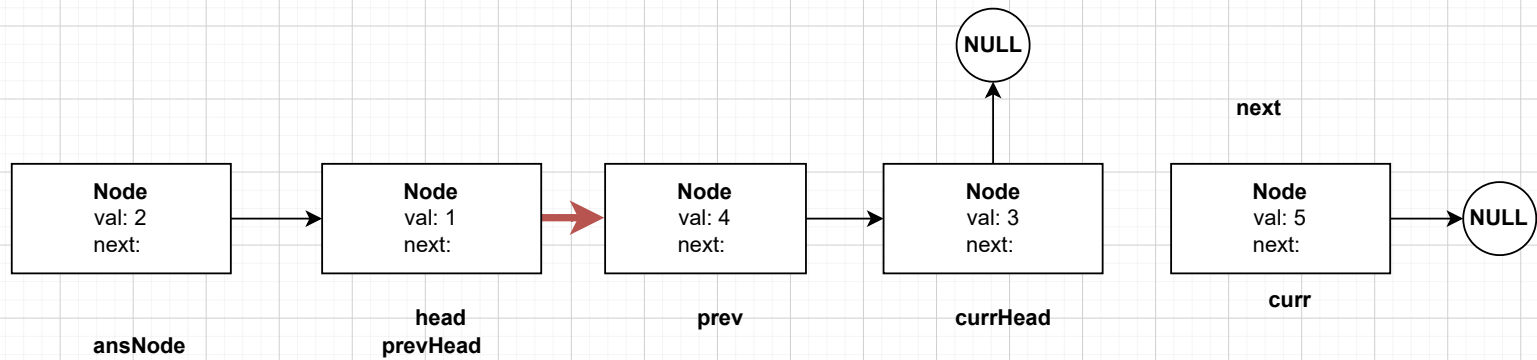
This is equivalent to ==>



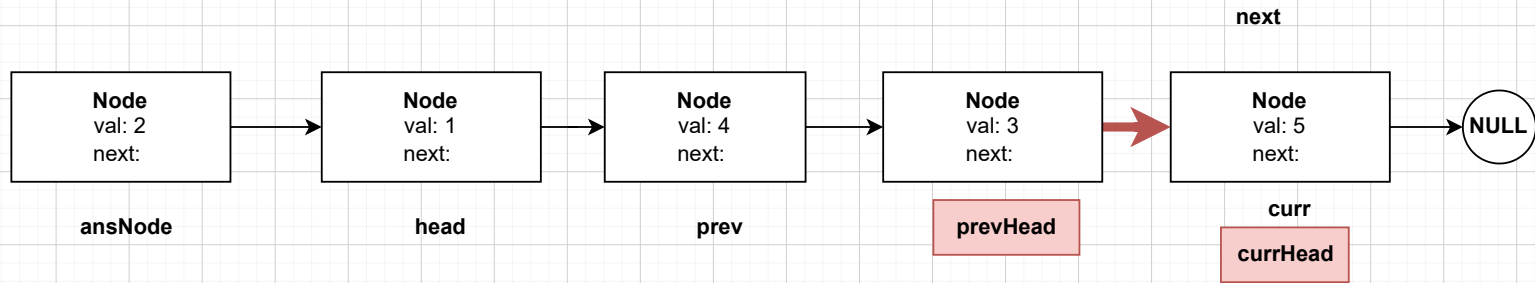
### After Reversing elemnts in K-group

```
if(prevHead == null) {  
    ansNode = prev;  
} else {  
    prevHead.next = prev;  
}
```

```
prevHead = currHead;  
currHead = curr;
```



```
//link the last incomplete group  
// ,if last group was complete  
//currHead would be null  
prevHead.next = currHead;
```



```
return ansNode;
```