082. Remove Duplicates from Sorted List II

082 Remove Duplicates from Sorted List II

• Linked List

Description

Given a sorted linked list, delete all nodes that have duplicate numbers, leaving only distinct numbers from the original list.

For example,

```
Given 1->2->3->3->4->4->5, return 1->2->5.
Given 1->1->1->2->3, return 2->3.
```

1. Thought line

```
To each distinct element cheeking loop:
    - Count times : count Times
     - If count Times ==1;
         · validate Pointer pointers to this element
         · Next distinct element cheeking loop:
     - If counterTimes >1;
          · Nadidate Pointen stay
          · Next distinct element cheeking loop:
                                           NewHead = Head-snext
      head
valida
```

2. Linked List

```
/**
 * Definition for singly-linked list.
 * struct ListNode {
 * int val;
 * ListNode *next;
 * ListNode(int x) : val(x), next(NULL) {}
 * };
 */
class Solution {
 public:
    ListNode* deleteDuplicates(ListNode* head) {
    ListNode* dummyHead = new ListNode(0);
    dummyHead->next = head;
```

```
ListNode* validatedPtr = dummyHead;
        int actElement = 0;
       while(head!=nullptr){
            ++actElement;
           while(head->next!=nullptr && head->next->val == head->val){
               ++actElement;
               head = head->next;
           ListNode* newHead = head->next;
           if (actElement==1){
               validatedPtr->next = head;
               validatedPtr = validatedPtr->next;
               validatedPtr->next = nullptr;
               head->next = nullptr;
           head = newHead;
           actElement = 0;
        return dummyHead->next;
};
class Solution {
   ListNode* deleteDuplicates(ListNode* head) {
       ListNode* dummyHead = new ListNode(0);
       dummyHead->next = head;
       ListNode* validatedPtr = dummyHead;
       int actElement = 0;
       while(head!=nullptr){
            ++actElement;
           while(head->next!=nullptr && head->next->val == head->val){
                ++actElement;
               head = head->next;
           if (actElement==1){
               validatedPtr->next = head;
               validatedPtr = validatedPtr->next;
           head = head->next;
           actElement = 0;
        validatedPtr->next = nullptr;
        return dummyHead->next;
```