

147. Insertion Sort List

题目描述: <https://leetcode.com/problems/insertion-sort-list/>

要求实现链表的插入排序。

解题思路:

注意一定要注意边界条件和链表的重新穿起来

代码:

```

/**
 * Definition for singly-linked list.
 * struct ListNode {
 *     int val;
 *     ListNode *next;
 *     ListNode(int x) : val(x), next(NULL) {}
 * };
 */
class Solution {
public:
    ListNode* insertionSortList(ListNode* head) {
        ListNode *list = new ListNode(0);
        list->next = head;
        ListNode *phead = head;
        if(!head || !head->next)
            return head;
        head = list;
        ListNode *minNode = head->next;
        ListNode *preMaxNode = list;
        while(list->next){
            while(phead->next){
                if(phead->next->val < minNode->val){
                    minNode = phead->next;
                    preMaxNode = phead;
                }
                phead = phead->next;
            }
            if(preMaxNode!=list){
                ListNode * tmp = list->next;
                list->next = minNode;
                preMaxNode->next = minNode->next;
                minNode->next = tmp;
            }
            list = list->next;
            preMaxNode = minNode;
            minNode = minNode->next;
            phead = list->next;
        }
        return head->next;
    }
};

```