

# 147. Insertion Sort List

[link](#)

## 第二个循环得特别注意是大于等于

-2147483647,-2147483648 会报listNode cycle错误.

```
public ListNode insertionSortList(ListNode head) {
    if(head == null) return null;
    ListNode dum = new ListNode(Integer.MIN_VALUE);
    dum.next = head;
    head = dum;
    ListNode beforeStart = null, start = null, next = null, beforeCurrent =
head;
    while(head != null){
        if(head.val >= beforeCurrent.val) {
            beforeCurrent = head;
            head = head.next;
            continue;
        };
        start = dum;
        beforeStart = dum;
//这里得特别注意是大于等于
        while(head.val >= start.val){
            beforeStart = start;
            start = start.next;
        }
        next = head.next;
        beforeStart.next = head;
//如果没有等于，这两行会出现环
        head.next = start;
        beforeCurrent.next = next;
        head = next;
    }
    return dum.next;
}
```