题目

Merge two sorted linked lists and return it as a new list. The new list should be made by splicing together the nodes of the first two lists.

**Example:**

**Input:** 1->2->4, 1->3->4

**Output:** 1->1->2->3->4->4

就是把两个linked list合并，从小到大排列

这题实际上考查的是linked list本质上是对一个head从头到尾连接的过程，加上recursion

class Solution {

public ListNode mergeTwoLists(ListNode l1, ListNode l2) {

if(l1==null)

return l2;

else if (l2==null)

return l1;

else{

if(l1.val<=l2.val){

l1.next=mergeTwoLists(l1.next,l2); // 这样l1就像next进了一格 //mergeTwoList return的node是L1,L2merge完以后的list的head node

return l1;

}

else{

l2.next=mergeTwoLists(l1,l2.next);

return l2;

}

}

}

}