剑指offer第16题

```
package niuke;

import java.util.ArrayList;
import java.util.Collections;
import java.util.List;



/**
* @author tfxidian E-mail: tfxidian@163.com
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* 类说明
*/
public class MergeList {

    public static class ListNode {
        int val;
        ListNode next = null;

        ListNode(int val) {
            this.val = val;
        }
    }
    public static void main(String[] args) {
        ListNode [] listNode = new ListNode[6];
        for (int i = 0; i < 6; i++) {
            listNode[i] = new ListNode(100+i);
        }
        for (int i = 0; i < listNode.length-1; i++) {
            listNode[i].next = listNode[i+1];
        }

        ListNode [] listNode2 = new ListNode[6];
        for (int i = 0; i < 6; i++) {
            listNode2[i] = new ListNode(i+7);
        }
        for (int i = 0; i < listNode2.length-1; i++) {
            listNode2[i].next = listNode2[i+1];
        }

        ListNode node = Merge(listNode[0], listNode2[0]);

```

```
    }

    public static ListNode Merge(ListNode list1,ListNode list2) {

       if (list1 ==null) {
        return list2;
       }
       if (list2 == null) {
        return list1;
      }
       List<Integer> aList = new ArrayList<Integer>();
       ListNode node = list1;

       while (node!=null) {
        aList.add(node.val);

        node = node.next;
       }

       node =  list2;
       while (node!=null) {
        aList.add(node.val);

        node = node.next;
       }

       int len = aList.size();
       Collections.sort(aList);
       ListNode listNode2[] = new ListNode[len];
        for (int i = 0; i < len; i++) {
            listNode2[i] = new ListNode(aList.get(i));
        }
        for (int i = 0; i < listNode2.length-1; i++) {
            listNode2[i].next = listNode2[i+1];
        }

        node =  listNode2[0];
        while (node!=null) {
            aList.add(node.val);

            node = node.next;
        }

        return listNode2[0];
    }


}


```