# [合并K个排序链表](https://leetcode-cn.com/explore/interview/card/bytedance/244/linked-list-and-tree/1025/)

**头条重点**

## 题目

合并 k 个排序链表，返回合并后的排序链表。请分析和描述算法的复杂度。

示例:  
  
输入:  
[  
 1->4->5,  
 1->3->4,  
 2->6  
]  
输出: 1->1->2->3->4->4->5->6

## 解题思路

1. 通过小根堆，将所有元素放入小根堆
2. 从小根堆依次取出数据

public ListNode mergeKLists(ListNode[] lists) {  
 if (lists == null) {  
 return null;  
 }  
  
 Queue<ListNode> set = new PriorityQueue<>(Comparator.comparingInt(o -> o.val));  
  
 for (ListNode node : lists) {  
 while (node != null) {  
 set.add(node);  
 node = node.next;  
 }  
 }  
  
 ListNode head = new ListNode(-1);  
 ListNode res = head;  
 ListNode cur;  
 while ((cur = set.poll()) != null) {  
 head.next = cur;  
 head = head.next;  
 }  
  
 head.next = null;  
 return res.next;  
}