

Name: Anshul

UID: 22BCS16477

Section/Group: 609(B)

Merge k Sorted Lists

Code:

```
#include <queue>
class Solution {
public:
    struct Compare {
        bool operator()(ListNode* a, ListNode* b) {
            return a->val > b->val;
        }
    };
    ListNode* mergeKLists(vector<ListNode*>& lists) {
        priority_queue<ListNode*, vector<ListNode*>, Compare> minHeap;
        for (ListNode* list : lists) {
            if (list) minHeap.push(list);
        }
        ListNode dummy(0);
        ListNode* tail = &dummy;
        while (!minHeap.empty()) {
            ListNode* minNode = minHeap.top();
            minHeap.pop();
            tail->next = minNode;
            tail = minNode;

            if (minNode->next) {
                minHeap.push(minNode->next);
            }
        }
        return dummy.next;
    }
};
```

Output:

CU-Assignments/assignment3 x Merge k Sorted Lists - LeetCode x Download file | iLovePDF x +

leetcode.com/problems/merge-k-sorted-lists/submissions/1565100307/

Problem List < > Run Submit

Description Accepted x Editorial Solutions Submissions

All Submissions

Accepted 134 / 134 testcases passed
228CS16477_Anshul submitted at Mar 06, 2025 22:28

Runtime 3 ms Beats 64.88%
Memory 18.51 MB Beats 50.86%

Analyze Complexity

75%
50%
25%
0%

1ms 26ms 50ms 75ms 100ms 125ms 150ms 175ms

Code C++

```
#include <queue>
class Solution {
public:
    struct Compare {
        bool operator()(ListNode* a, ListNode* b) {
            return a->val > b->val;
        }
    };
    ListNode* mergeKLists(vector<ListNode*>& lists) {
        priority_queue<ListNode*, vector<ListNode*>, Compare> minHeap;
        for (ListNode* list : lists) {
            if (list) minHeap.push(list);
        }
        ListNode dummy(0);
        ListNode* tail = &dummy;
        while (!minHeap.empty()) {
            ListNode* minNode = minHeap.top();
            minHeap.pop();
            tail->next = minNode;
        }
    }
};
```

Saved Ln 21, Col 1

Testcase Test Result

Case 1 Case 2 Case 3 +

lists =

[[1,4,5], [1,3,4], [2,6]]

</> Source

Type here to search 15°C Clear 22:28 06-03-2025