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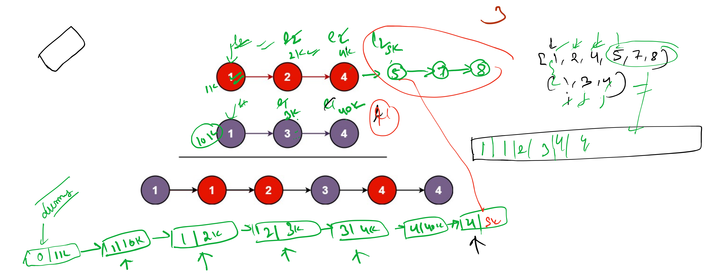
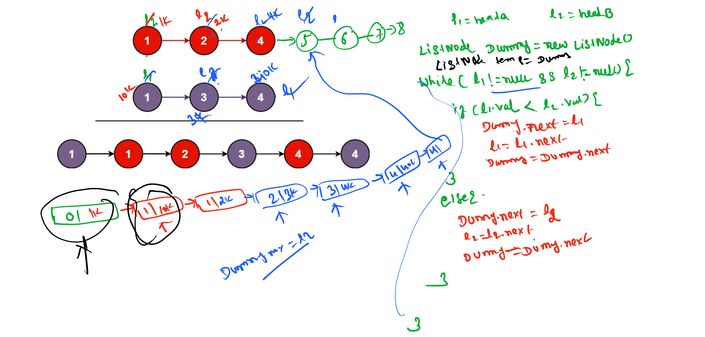
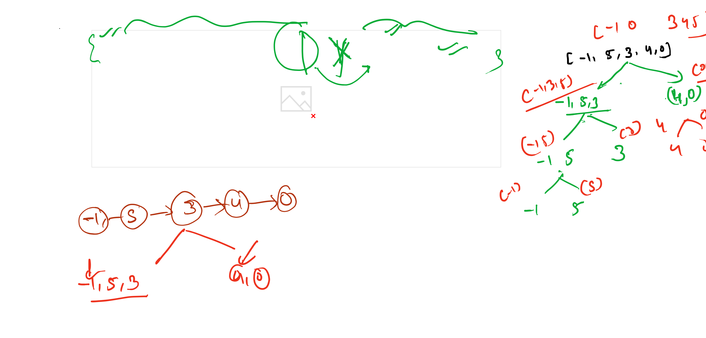
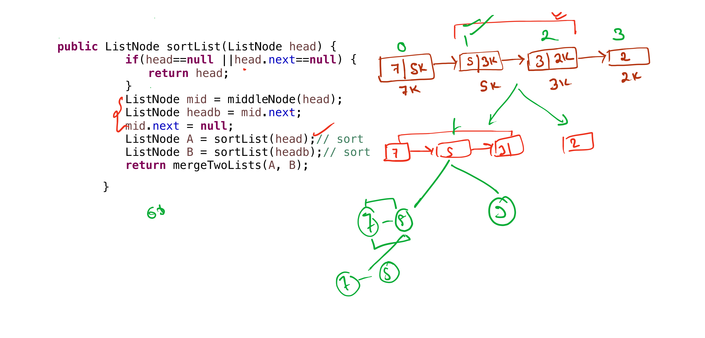
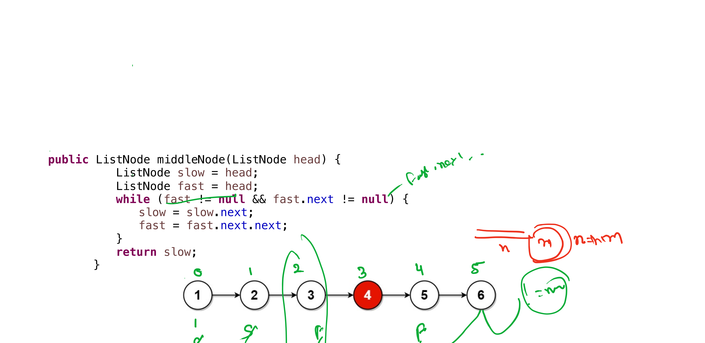




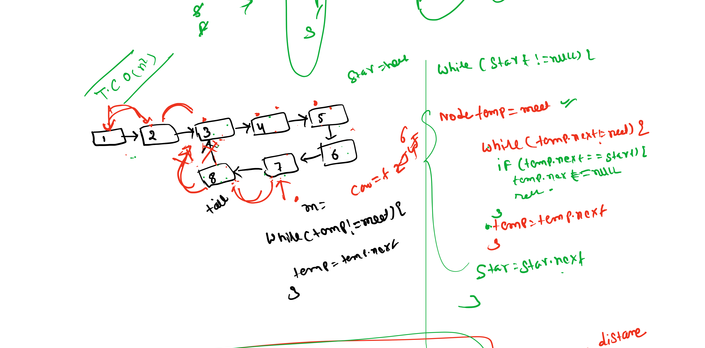






```
public ListNode sortList(ListNode head) {
        if(head==null ||head.next==null) {
            return head;
        }
        ListNode mid = middleNode(head);
        ListNode headb = mid.next;
        mid.next = null;
        ListNode A = sortList(head);// sort
        ListNode B = sortList(headb);// sort
        return mergeTwoLists(A, B);

    }
```



```
public ListNode middleNode(ListNode head) {
        ListNode slow = head;
        ListNode fast = head;
        while (fast != null && fast.next != null) {
            slow = slow.next;
            fast = fast.next.next;
        }
        return slow;
    }
```