Experiment 2

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Semester:6TH **Date of Performance:27/01/25**

Subject Name: AP LAB 2 **Subject Code:22CSP-351**

1. **Aim: Linked List**
   a. Remove Duplicates from A Sorted List
   b. Merge Two Sorted Linked Lists

2. **Code:**
   a.
   ```
   class Solution {
     public ListNode deleteDuplicates(ListNode head) {
       ListNode temp = head;
       while (temp != null && temp.next != null) {
         if (temp.val == temp.next.val) {
           temp.next = temp.next.next;
         } else {
           temp = temp.next;
         }
       }
       return head;
     }
   }
   ```

   b.
   ```
   class Solution {
   public ListNode mergeTwoLists(ListNode list1, ListNode list2) {
     ListNode dummy = new ListNode();
     ListNode cur = dummy;
     while (list1 != null && list2 != null) {
       if (list1.val > list2.val) {
         cur.next = list2;
         list2 = list2.next;
       } else {
         cur.next = list1;
   ```

```
            list1 = list1.next;
        }
        cur = cur.next;
    }
    cur.next = (list1 != null) ? list1 : list2;
    return dummy.next;
    }
}
```

3. **Output:**

   a.

   b.