Task 5: Removing Duplicates from a Sorted Linked List

A sorted linked list has been constructed with repeated elements. Describe an algorithm to remove all duplicates from the linked list efficiently.

```
class ListNode {
    int val;
    ListNode next;

    ListNode(int val) {
        this.val = val;
    }
}

public class RemoveDuplicates {
    public static ListNode removeDuplicates(ListNode head) {
        ListNode current = head;

        while (current != null && current.next != null) {
            if (current.val == current.next.val) {
                current.next = current.next.next;
            } else {
                current = current.next;
            }
        }

        return head;
    }

    public static void main(String[] args) {
        ListNode head = new ListNode(1);
        head.next = new ListNode(1);
        head.next.next = new ListNode(2);
        head.next.next.next = new ListNode(2);
        head.next.next.next.next = new ListNode(3);

        System.out.println("Linked List before removing duplicates:");
        printLinkedList(head);

        ListNode newHead = removeDuplicates(head);

        System.out.println("Linked List after removing duplicates:");
        printLinkedList(newHead);
    }

    public static void printLinkedList(ListNode head) {
        ListNode current = head;
        while (current != null) {
```

```
            System.out.print(current.val + " ");
            current = current.next;
        }
        System.out.println();
    }
}
```