

Day-12 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.

Solution:

To efficiently remove duplicates from a sorted linked list, you can traverse the list and remove any consecutive nodes with the same value. This can be done in a single pass through the list. Here's how you can implement this algorithm:

1. Start with the head of the linked list.
2. Traverse the list, comparing each node's value with the value of its next node.
3. If the current node's value is equal to the next node's value, remove the next node by updating the current node's next pointer to skip over it.
4. Repeat this process until you reach the end of the list.