

## REMOVE DUPLICATE

```
package com.wipro;

import java.util.HashSet;

public class RemoveDuplicate {
    public static void removeDuplicates(ListNode head) {
        if (head == null) {
            return;
        }

        HashSet<Integer> seenValues = new HashSet<>();
        ListNode current = head;
        ListNode prev = null;

        while (current != null) {
            if (seenValues.contains(current.value)) {
                prev.next = current.next; // Remove the current node
            } else {
                seenValues.add(current.value);
                prev = current;
            }
            current = current.next;
        }
    }

    public static void main(String[] args) {
        // Create a linked list 1 -> 2 -> 3 -> 2 -> 4 -> 3 -> 5
        ListNode node1 = new ListNode(1);
        ListNode node2 = new ListNode(2);
        ListNode node3 = new ListNode(3);
        ListNode node4 = new ListNode(2);
        ListNode node5 = new ListNode(4);
        ListNode node6 = new ListNode(3);
        ListNode node7 = new ListNode(5);
        node1.next = node2;
        node2.next = node3;
        node3.next = node4;
        node4.next = node5;
        node5.next = node6;
        node6.next = node7;

        System.out.println("Original list:");
        printList(node1);

        removeDuplicates(node1);

        System.out.println("List after removing duplicates:");
        printList(node1);
    }

    public static void printList(ListNode head) {
        ListNode current = head;
        while (current != null) {
            System.out.print(current.value + " ");
            current = current.next;
        }
    }
}
```

```
    System.out.println();  
}  
}
```

```
1 package com.wipro;  
2  
3 import java.util.HashSet;  
4  
5  
6 public class RemoveDuplicate {  
7     public static void removeDuplicates(ListNode head) {  
8         if (head == null) {  
9             return;  
10        }  
11  
12        HashSet<Integer> seenValues = new HashSet<>();  
13        ListNode current = head;  
14        ListNode prev = null;  
15  
16        while (current != null) {  
17            if (seenValues.contains(current.value)) {  
18                prev.next = current.next; // Remove the current node  
19            } else {  
20                seenValues.add(current.value);  
21                prev = current;  
22            }  
23            current = current.next;  
24        }  
25    }  
26  
27    public static void main(String[] args) {  
28        // Create a linked list 1 -> 2 -> 3 -> 2 -> 4 -> 3 -> 5  
29        ListNode node1 = new ListNode(1);
```

com.wipro  
RemoveDuplicate  
removeDuplicates(ListNode) : void  
main(String[]) : void  
printList(ListNode) : void

Markers Properties Terminal Console Coverage  
<terminated> RemoveDuplicate [Java Application] C:\Users\Nikita\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64.16.0.2.v20210721-1149\jre\bin\javaw.exe (Jun 4, 2024, 11:23:36 AM - 1  
Original list:  
1 2 3 2 4 3 5  
List after removing duplicates:  
1 2 3 4 5