

# Remove Duplicates from Sorted List II

**Question:** Given a sorted linked list, delete all nodes that have duplicate numbers, leaving only distinct numbers from the original list.

For example:

Given 1->2->3->3->4->4->5, return 1->2->5.

Given 1->1->1->2->3, return 2->3.

## Solutions:

```
class ListNode:
```

```
    def __init__(self, x):
```

```
        self.val = x
```

```
        self.next = None
```

```
class Solution:
```

```
    # @param head, a ListNode
```

```
    # @return a ListNode
```

```
    def deleteDuplicates(self, head):
```

```
        if head == None: return None
```

```
        dummy = ListNode(10**10)
```

```
        dummy.next, head = head, dummy # add a dummy node
```

```
        pprev, prev, curr, dupFlag = head, head.next, head.next.next, False
```

```
        while True:
```

```
            if dupFlag == True:
```

```
                if curr == None:
```

```
                    pprev.next = None
```

```
                    break
```

```
        if prev.val != curr.val:
            pprev.next, prev, dupFlag = curr, curr, False
    else:
        if curr == None: break
        if prev.val == curr.val:
            dupFlag = True
        else:
            pprev, prev = pprev.next, prev.next
    curr = curr.next
    return head.next
```

```
def printll(self, node):
```

```
    while node:
        print ( node.val )
        node = node.next
```

```
if __name__ == '__main__':
```

```
    ll1, ll1.next, ll1.next.next = ListNode(2), ListNode(2), ListNode(5)
    Solution().printll( Solution().deleteDuplicates(ll1) )
```