

# Remove duplicates from an unsorted linked list

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Given an unsorted linked list of **N** nodes. The task is to remove duplicate elements from this unsorted Linked List. When a value appears in multiple nodes, the node which appeared first should be kept, all others duplicates are to be removed.

## Example 1:

```
Input: N = 4
value[] = {5,2,2,4}
Output: 5 2 4 Explanation: Given linked list elements are
5->2->2->4, in which 2 is repeated only.
So, we will delete the extra repeated
elements 2 from the linked list and the
resultant linked list will contain 5->2->4
```

## Example 2:

```
Input: N = 5
value[] = {2,2,2,2,2}
Output: 2 Explanation: Given linked list elements are
2->2->2->2->2, in which 2 is repeated. So,
we will delete the extra repeated elements
2 from the linked list and the resultant
linked list will contain only 2.
```

## Your Task:

You have to complete the method **removeDuplicates()** which takes **1** argument: the **head** of the linked list. Your function should return a pointer to a linked list with no duplicate element.

**Expected Time Complexity:**  $O(N)$

**Expected Auxiliary Space:**  $O(N)$

## Constraints:

$1 \leq \text{size of linked lists} \leq 10^6$

$0 \leq \text{numbers in list} \leq 10^4$

```
def removeDuplicates(self, head):
    # code here
    # return head after editing list
    if head is None or head.next is None:
        return head
```

```
dummyHead = Node(-1)
subset = set()
curr = head
prev = dummyHead
while curr!=None:
    if curr.data in subset:
        curr = curr.next
    else:
        prev.next = curr
        prev = curr
        subset.add(curr.data)
        curr = curr.next
if prev.next!=None:
    prev.next = None
return dummyHead.next
```