# Delete a Node 🛊

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Problem Solv

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This challenge is part of a tutorial track by MyCodeSchool and is accompanied by a video lesson.

Delete the node at a given position in a linked list and return a reference to the head node. The head is at position 0. The list may be empty after you delete the node. In that case, return a null value.

# Example

 $\textit{llist} = 0 \rightarrow 1 \rightarrow 2 \rightarrow 3$ 

position = 2

After removing the node at position 2,  $\mathit{llist'} = 0 \to 1 \to 3$ .

## **Function Description**

Complete the deleteNode function in the editor below.

deleteNode has the following parameters:

- SinglyLinkedListNode pointer llist: a reference to the head node in the list
- int position: the position of the node to remove

#### Returns

- SinglyLinkedListNode pointer: a reference to the head of the modified list

# Input Format

The first line of input contains an integer n, the number of elements in the linked list.

Each of the next  $\boldsymbol{n}$  lines contains an integer, the node data values in order.

The last line contains an integer, *position*, the position of the node to delete.

# Constraints

- $1 \le n \le 1000$
- $1 \leq list[i] \leq 1000$ , where list[i] is the  $i^{th}$  element of the linked list.

# Sample Input

- 8
- 20
- 6
- 19
- 7
- 4 15
- 9
- 3

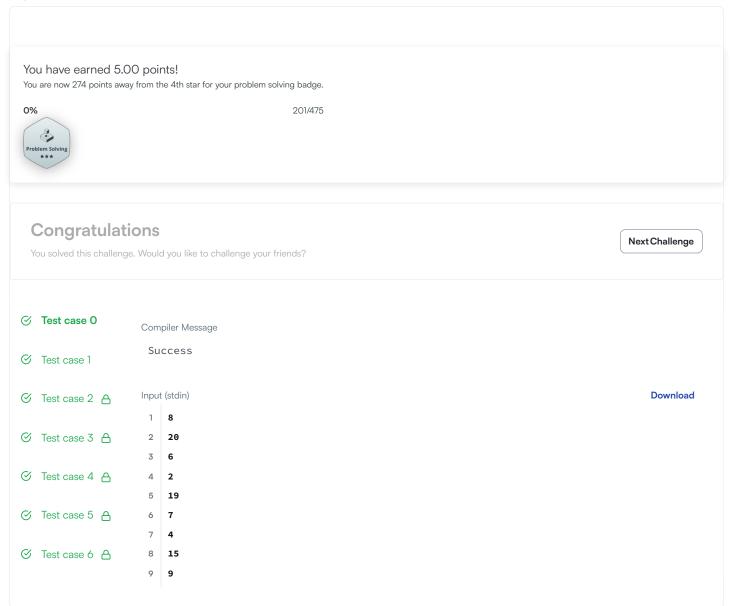
# Sample Output

20 6 2 7 4 15 9

## Explanation

The original list is  $20 \rightarrow 6 \rightarrow 2 \rightarrow 19 \rightarrow 7 \rightarrow 4 \rightarrow 15 \rightarrow 9$ . After deleting the node at position 3, the list is  $20 \rightarrow 6 \rightarrow 2 \rightarrow 7 \rightarrow 4 \rightarrow 15 \rightarrow 9$ .

```
Change Theme
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          # The function accepts following parameters:
     44
          # 1. INTEGER_SINGLY_LINKED_LIST llist
     45
          # 2. INTEGER position
     46
     47
     48
     49
          # For your reference:
     50
          # SinglyLinkedListNode:
     51
                int data
     52
                SinglyLinkedListNode next
     53
     54
     55
     56
     57
          def deleteNode(llist, position):
     58
              # Write your code here
     59
              cur = llist
     60
              pre = None
     61
              for _ in range(position):
     62
                  pre = cur
     63
                  cur = cur.next
              # delete the head node
     64
              if cur == llist:
     65
                  # only one node
     66
                  if llist.next is None:
     67
                      return None
     69
                  else:
                      # there are other node left
     70
     71
                      return llist.next
     72
              # delete inner node
     73
              pre.next = cur.next
     74
              return llist
     75
                      == '
                            main ':--
     76
          if
               name
EMACS
                                                                                                      Line: 44 Col: 1
                                                                                                 Run Code
                                                                                                            Submit Code
 Test against custom input
```



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