

Problem 4: Given a [linked list](#), and a number N. Find the Nth node from the end of this linked list and delete it. Return the head of the new modified linked list.

```
class ListNode:
```

```
    def __init__(self, val=0, next=None):
```

```
        self.val = val
```

```
        self.next = next
```

```
def remove_nth_from_end(head, n):
```

```
    first = head
```

```
    second = head
```

```
    for i in range(n):
```

```
        if first.next:
```

```
            first = first.next
```

```
        else:
```

```
            return head
```

```
    while first.next:
```

```
        first = first.next
```

```
        second = second.next
```

```
    if not second.next:
```

```
        return head.next
```

```
    else:
```

```
        second.next = second.next.next
```

```
    return head
```

```
def list_to_linked_list(lst):
```

```
    if not lst:
```

```
        return None
```

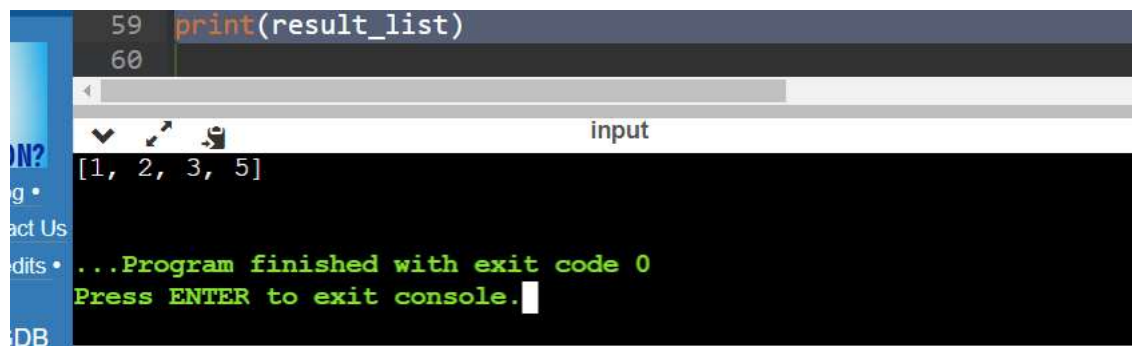
```
head = ListNode(lst[0])
current = head
for val in lst[1:]:
    current.next = ListNode(val)
    current = current.next

return head
```

```
def linked_list_to_list(head):
    lst = []
    current = head
    while current:
        lst.append(current.val)
        current = current.next

    return lst
```

```
input_list = [1, 2, 3, 4, 5]
n = 2
head = list_to_linked_list(input_list)
new_head = remove_nth_from_end(head, n)
result_list = linked_list_to_list(new_head)
print(result_list)
```



The screenshot shows a code editor with a dark theme. Line 59 contains the code `print(result_list)`. Below the editor is a terminal window. The terminal title bar says "input". The terminal content shows the output `[1, 2, 3, 5]` on the first line. The second line shows the message `...Program finished with exit code 0`. The third line shows the prompt `Press ENTER to exit console.` with a white cursor at the end.