

Reverse a Doubly Linked List

Given a doubly linked list of n elements. The task is to **reverse** the doubly linked list.

Example 1:

Input: LinkedList: 3 <--> 4 <--> 5

Output: 5 4 3

Example 2:

Input: LinkedList: 75 <--> 122 <--> 59 <--> 196

Output: 196 59 122 75

Your Task:

Your task is to complete the given function **reverseDLL()**, which takes **head** reference as argument and should **reverse** the elements so that the tail becomes the new head and all pointers are correctly pointed. You need to **return** the **new head** of the reversed list. The **printing** and **verification** is done by the **driver** code.

Expected Time Complexity: $O(n)$.

Expected Auxiliary Space: $O(1)$.

Constraints:

$1 \leq \text{number of nodes} \leq 10^3$

$0 \leq \text{value of nodes} \leq 10^3$

```
def reverseDLL(head) :  
    #return head after reversing  
    if head is None or head.next is None:  
        return head  
    curr = head  
    last = None  
    forward = None  
  
    while curr!=None:  
        forward = curr.next  
        curr.next = last  
        curr.prev = curr.next  
        last = curr  
        curr = forward  
    return last
```

