

REVERSE LINKED LIST

ITERATIVE:

Input State:

Head $\rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow \text{NULL}$

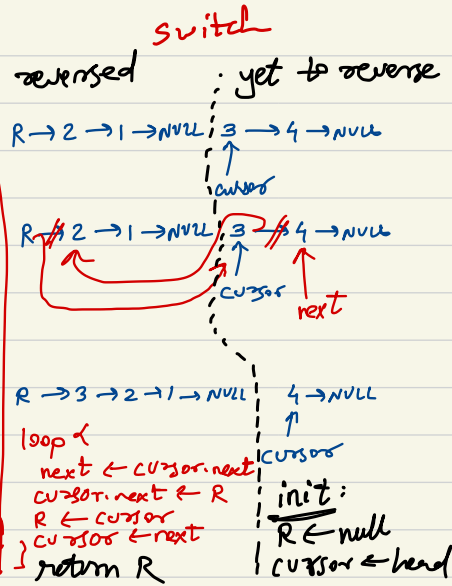
... Somewhere in between

$R \rightarrow 2 \rightarrow 1 \rightarrow \text{NULL}$ $3 \rightarrow 4 \rightarrow \text{NULL}$
 reversed so far cursor

Output State:

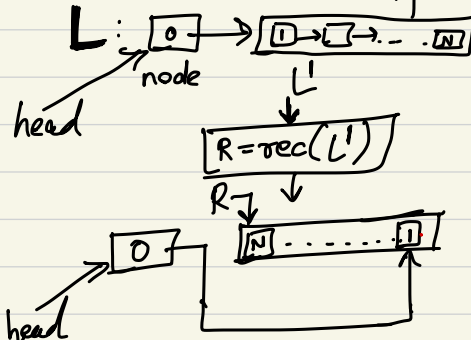
$R \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 1 \rightarrow \text{NULL}$

yet to reverse

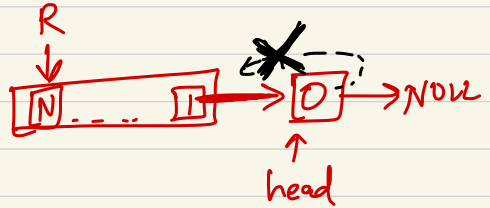


RECURSIVE:

contract: function gives reversed List.



switch



$R \leftarrow \text{rec}(\text{head.next})$
 head.next.next \leftarrow head
 head.next \leftarrow null
 return R.

Base Case:

Head is NULL or single Node

head == NULL || head.next == NULL

return head