

LeetCode #206

(Day - 3)

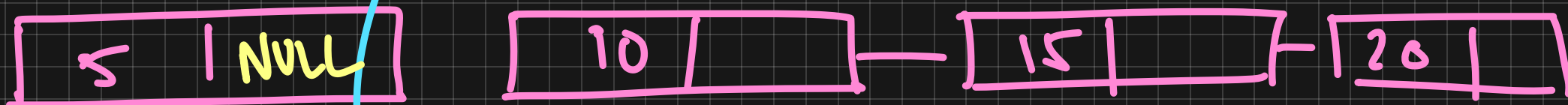
★ Reversing Singly Linked List



↑
Head
ptr

temp = Null

temp2 = Null.



↑
Head

↑
temp2 = head → next

head → link = temp

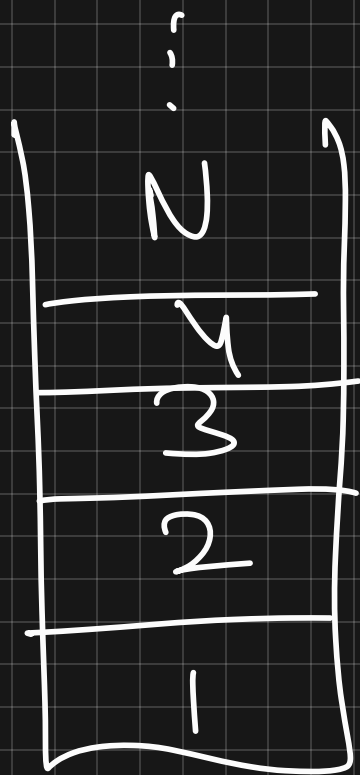
temp = head

head = temp2

while (head != NULL)

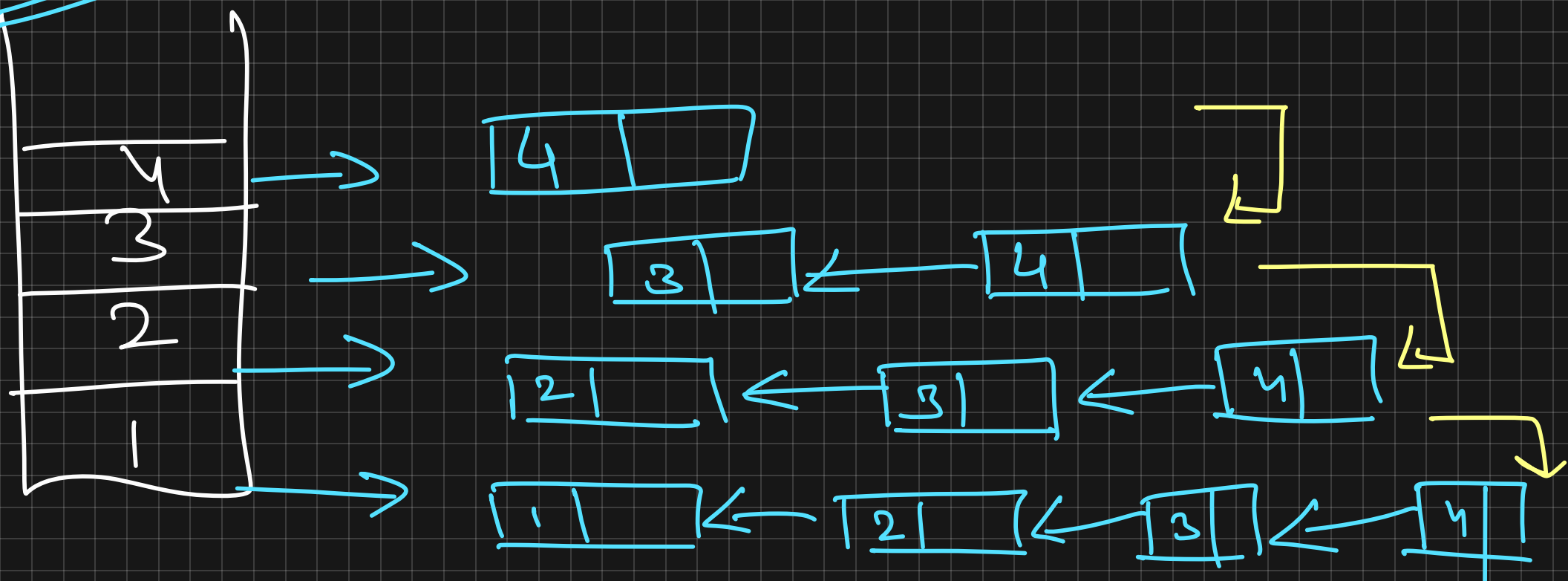
Recursive method:

We assume it's a Heap Stack / Stack.



We also assume that on each level of the stack, the current node will become a head and will receive a already reversed Linked List.

Ex



Intermediate Steps

Example

on level '2',

It shall receive a reversed LL from its upper level.

So now '2' wants 2 to point to it and wants to remove its pointer, so that '2' doesn't point to anyone. How does it do that?

Let $\text{head} = 2$

then $\text{head} \rightarrow \text{next}$ will be 3.

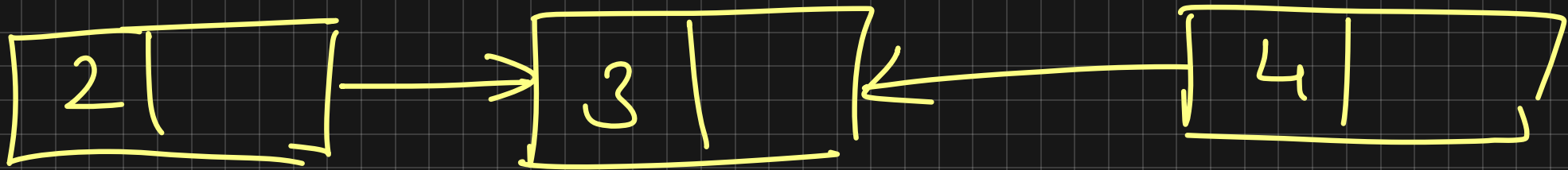
So, $\text{head} \rightarrow \text{next} \rightarrow \text{next}$ will be the element Node '3' will

point. So, with the help of.

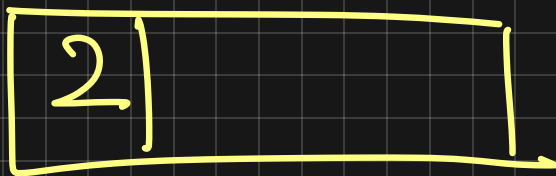
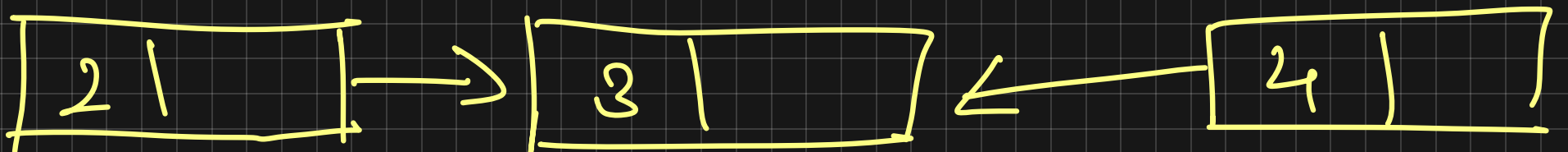
$\text{head} \rightarrow \text{next} \rightarrow \text{next} = \text{head};$

$\text{head} \cdot \text{next} = \text{NULL};$

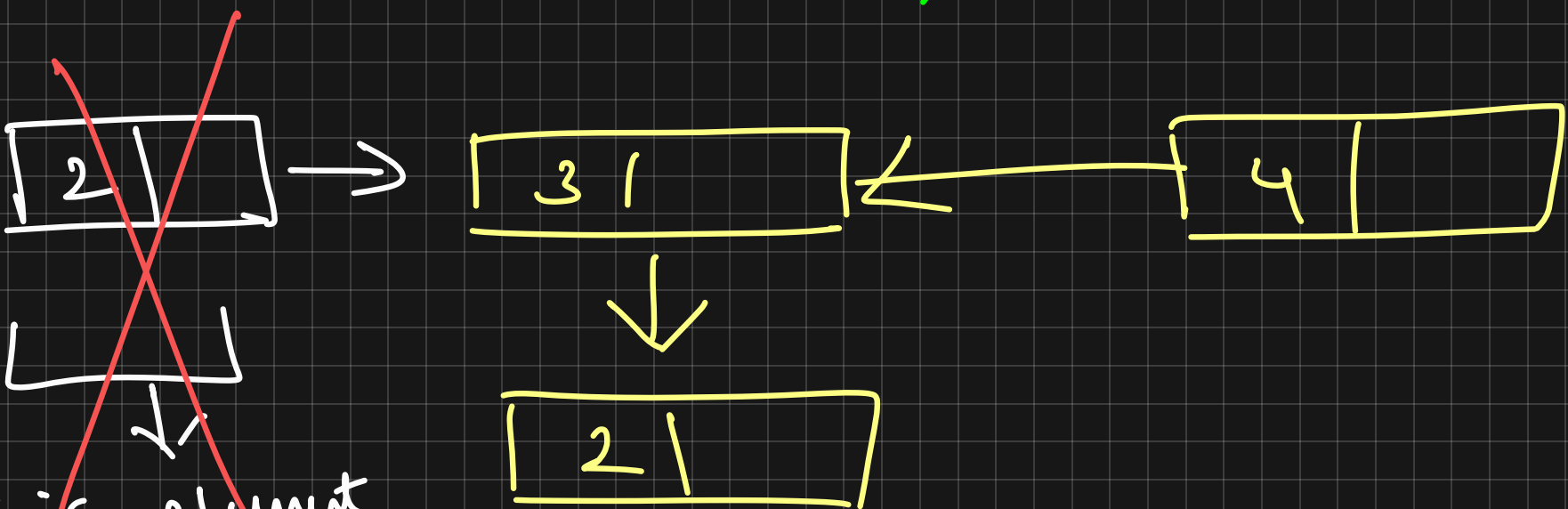
Basically,



`head → next → next = head;`



`head → next = NULL`



This element
is removed.