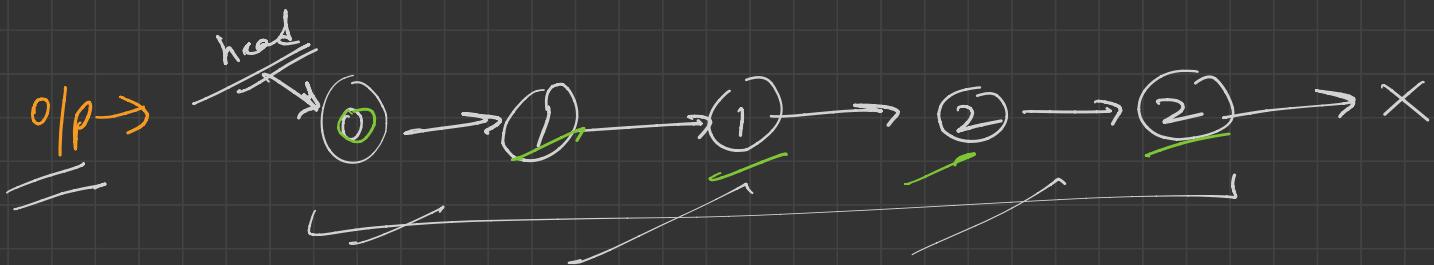
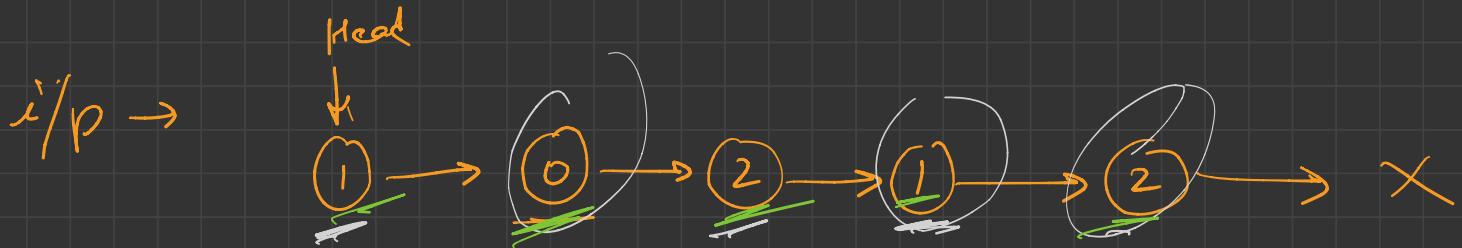
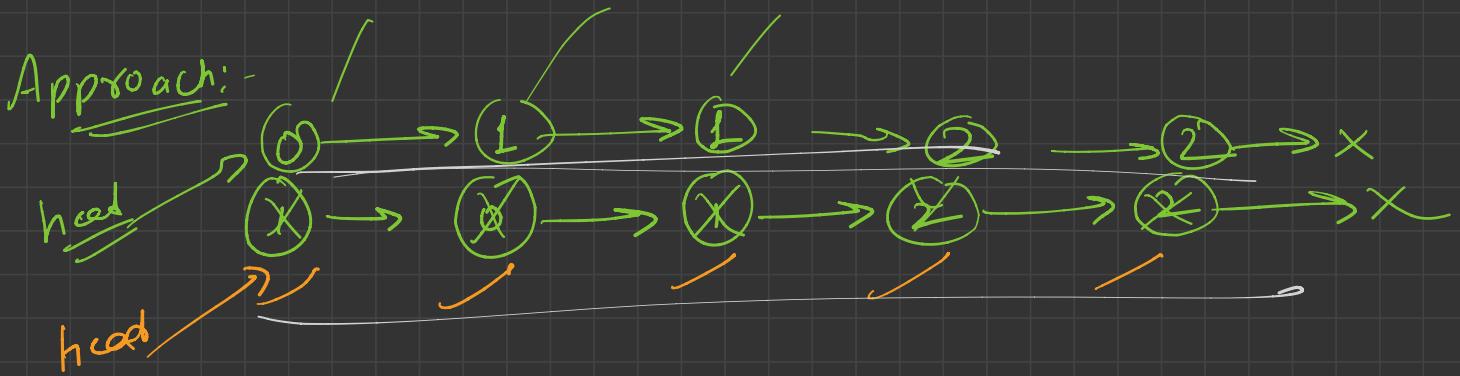



Linked List Questions

→ Sort 0s 1s 2s in LL



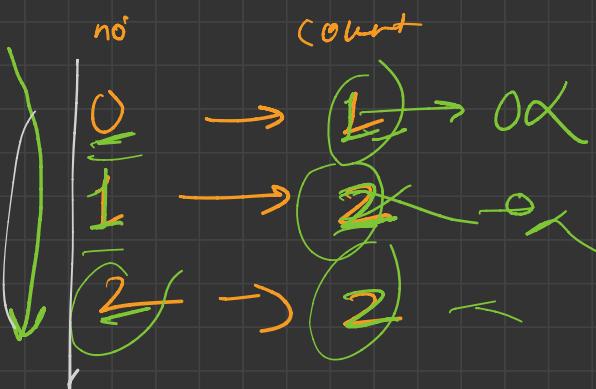
Solve → Approach



Algo:-

count 0, 1, 2

$$\begin{aligned}
 & O(n) + O(n) \\
 & \overline{1} \rightarrow \overline{O(n)} \\
 & S \rightarrow O(1)
 \end{aligned}$$



Code:-

Approach #2

head

①



②



③



④



⑤



Data replacement is not allowed

approach



change links

head

① | ②



③

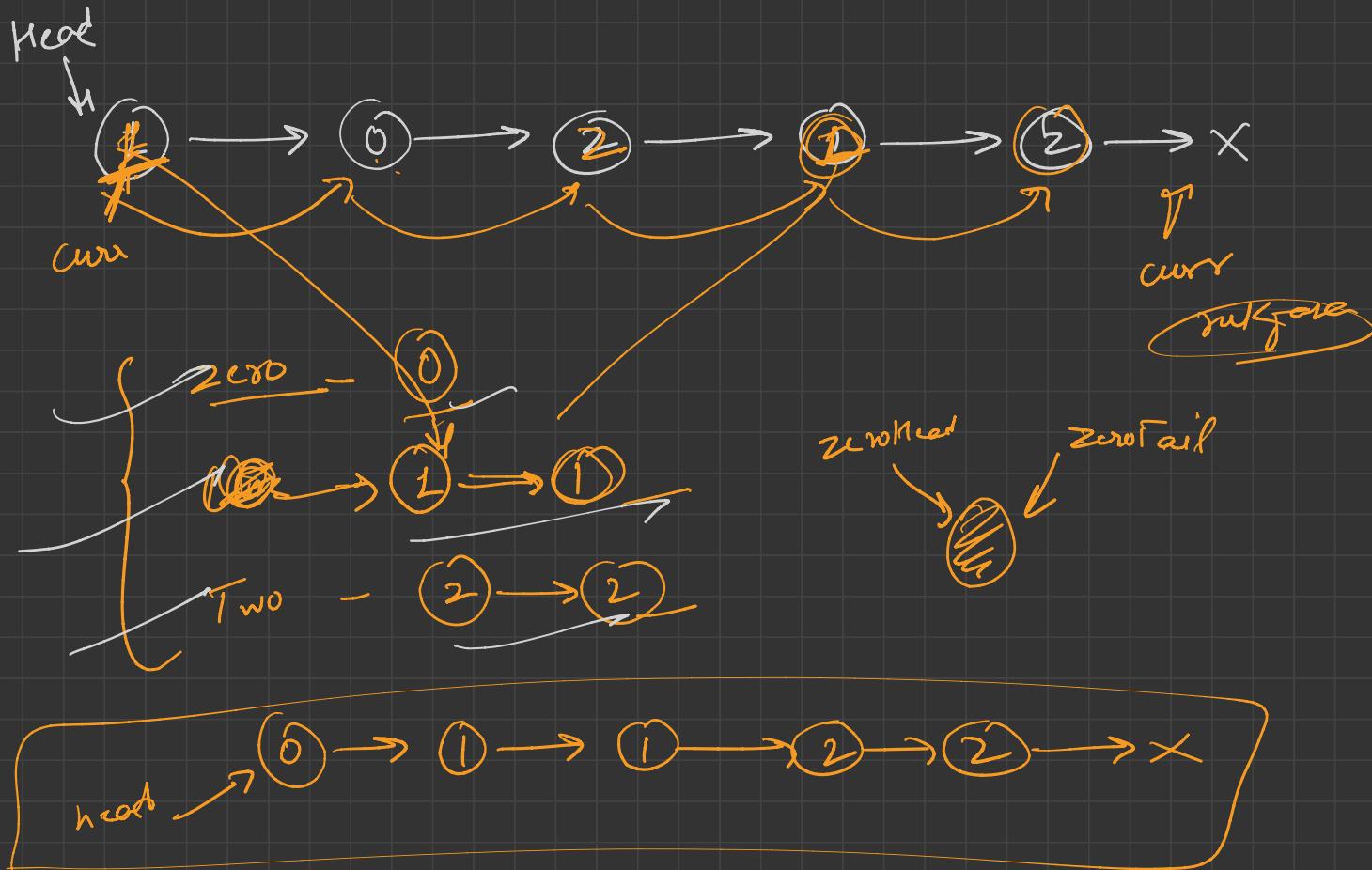


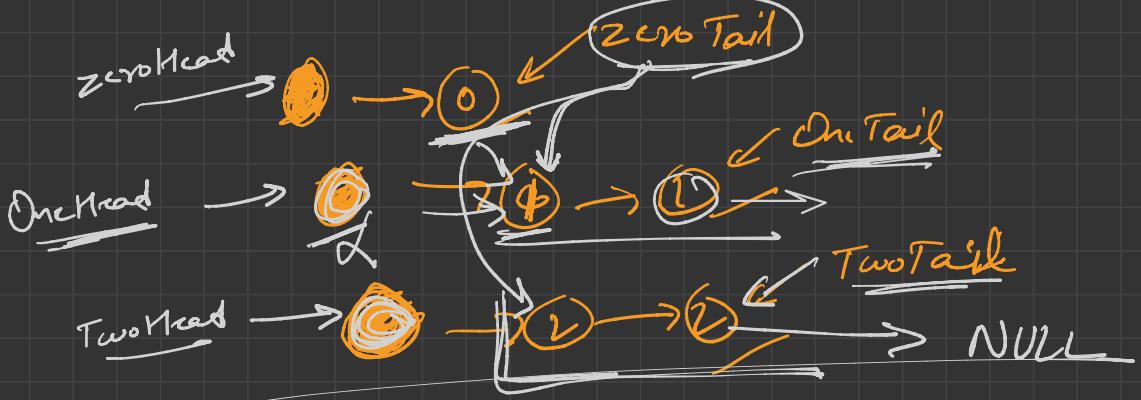
④



⑤







Merge:

zeroTail → next = oneHead → next

oneTail → next = Two Head → next

twoTail → next = NULL

$0 \geq 0 \rightarrow 0$

One \rightarrow X

Two $\rightarrow 0 \rightarrow 0 \rightarrow X$

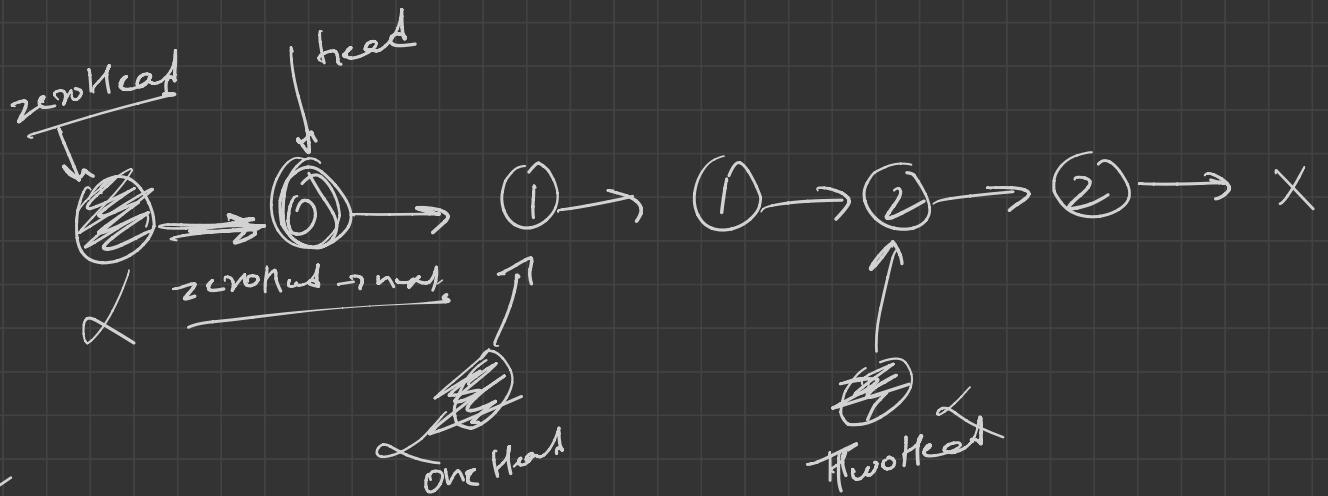
if $(\text{oneHead} \rightarrow \text{next} \neq \text{NULL}) \rightarrow$ 1's list non empty

{ $\frac{\text{zeroTail} \rightarrow \text{next} = \text{OneHead} \rightarrow \text{next}}{\text{}} \}$

else \rightarrow 1's list empty

{ $\frac{}{\text{}} = \text{TwoHead} \rightarrow \text{next}$

not



delete

$$T.C \rightarrow O(n) + O(1) + O(1) + O(1)$$

$$\approx \overbrace{O(n)}$$

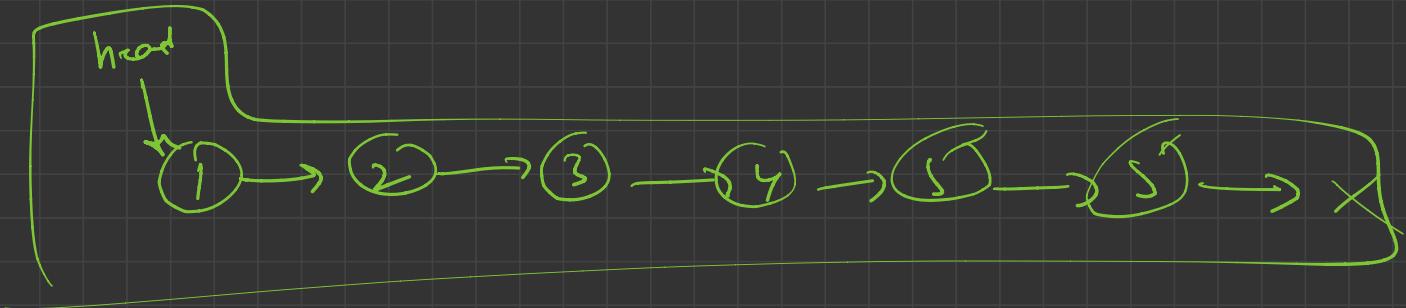
$$S.C \rightarrow O(1)$$

→ Merge 2 sorted Linked List

i/p



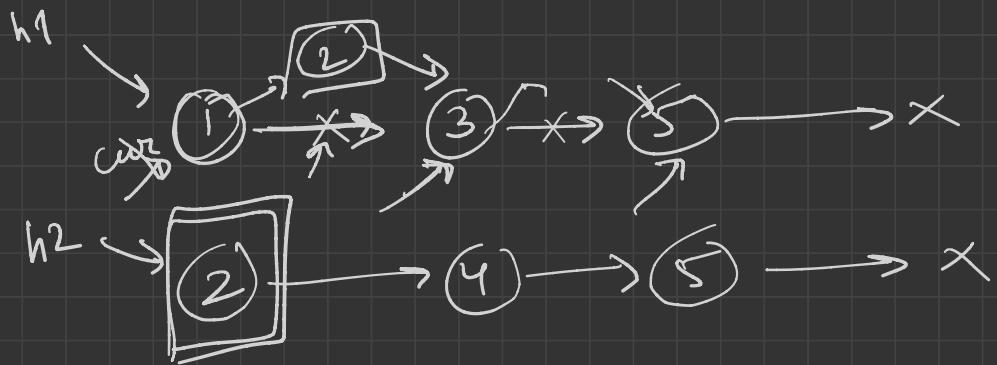
o/p →

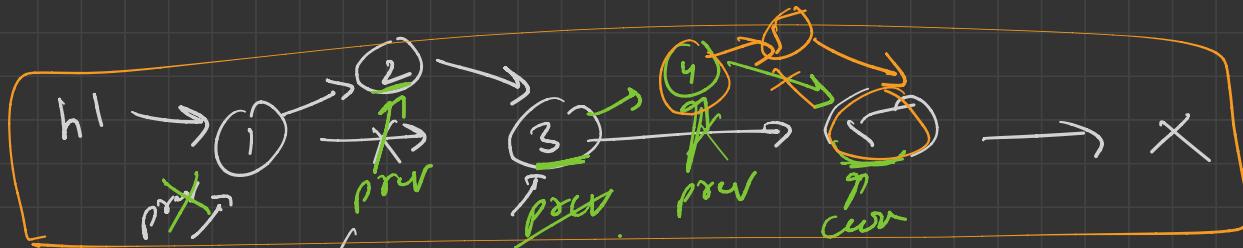


A pproach:-

if $(\text{head}1 == \text{NULL})$ \rightarrow l^{th} list empty
return head 2

if $(\text{head}2 == \text{NULL})$ \rightarrow 2^{n-1} list empty
return head 1





Batch in aa

$\left\{ \begin{array}{l} \text{prev} \\ \text{data} \end{array} \right\} \leq \text{temp} \rightarrow \text{data}$

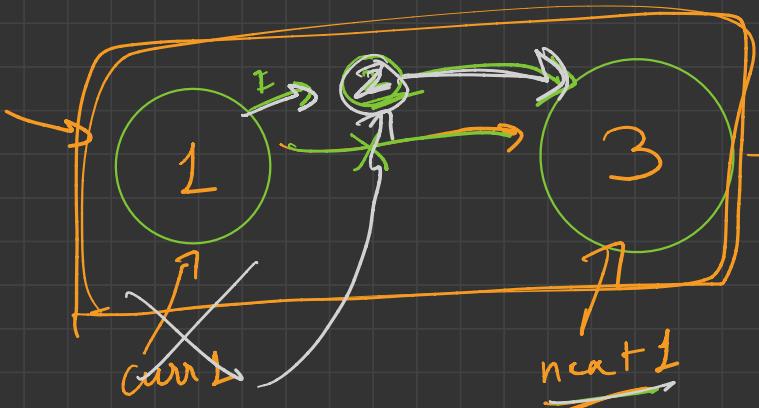
\leq $\left\{ \begin{array}{l} \text{curr} \\ \downarrow \\ \text{data} \end{array} \right\}$

TRUE \Rightarrow added node becomes
pointer's update Kdare

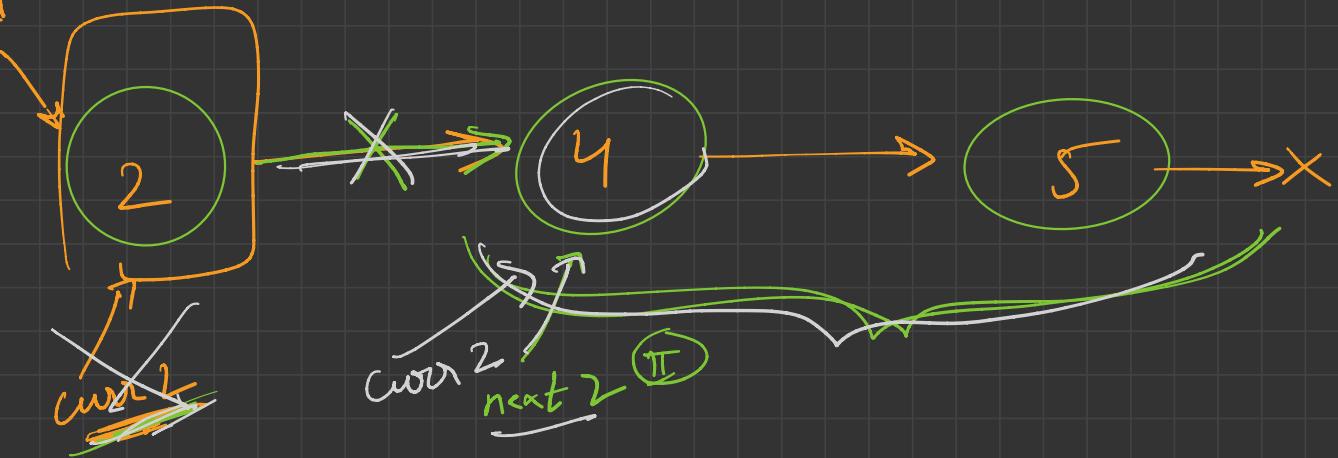
curr pointer goes back
 $d \leftarrow$

→ Code

first



second



I → curr1 → next = curr2

II next2 = curr2 → next

III curr2 → next = next - 1

(iv) \Rightarrow curr1 = curr2

v = curr2 = nc

