

Reverse A Linked List.

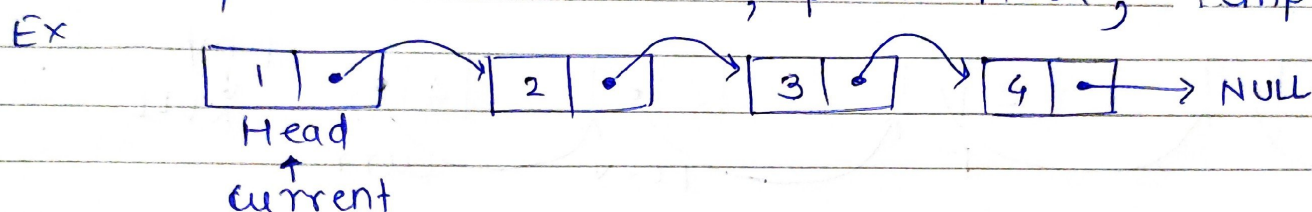
You are given A Linked List you need to Reverse it.

Ex: $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 = 4 \rightarrow 3 \rightarrow 2 \rightarrow 1$

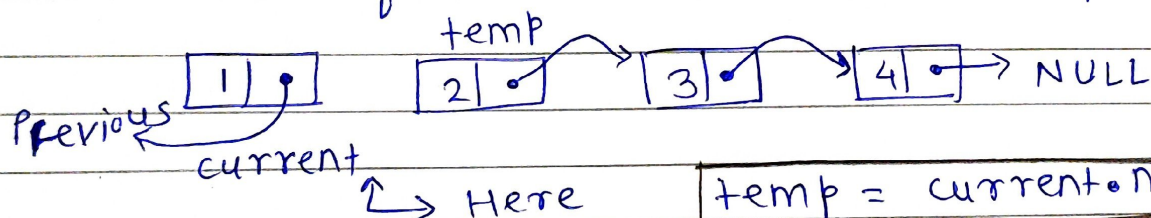
Approach For Reversing a Linked List :-

① Take three pointers/Node. (Say Node 'temp', 'prev', 'current').

Here, $\text{current} = \text{Head}$, $\text{prev} = \text{NULL}$, $\text{temp} = \text{NULL}$



Every time For Reversing you need to break the Linking First and then you have to Set the next part of Node to its previous Node, after this you have to also. Store the reference of the Node in a temporary Node.

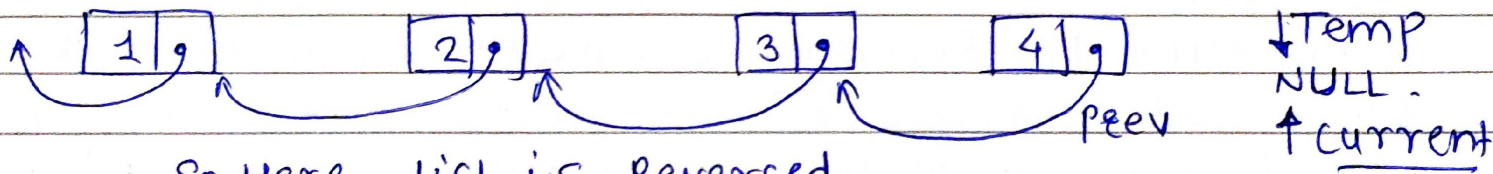
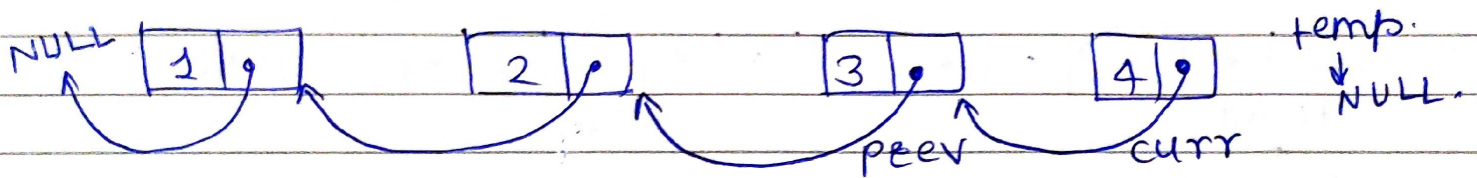
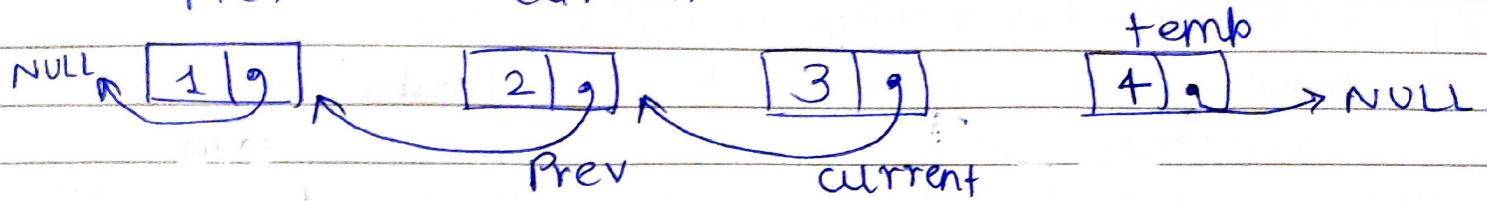
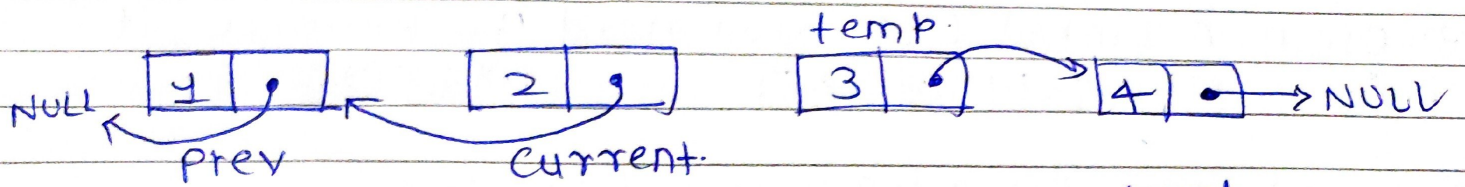


$\text{temp} = \text{current.next}$ (i.e. storing reference of the Node of with the link is broke)

$\text{current.next} = \text{prev}$ (i.e reversing the link and setting Node's next part to its previous Node.).

$\text{prev} = \text{current}$ (i.e Now as we are done with reversing First Node., move forward to next node to Break its link & Reverse it)

$\text{current} = \text{temp}$ (this the node now whose link we want to break, so do the same process with it)



So Here, list is Reversed.