Day - 6

Explaining linked list basics.

Part - 2

Performing basic operations on the linked lists:

→ Insert an element ✓

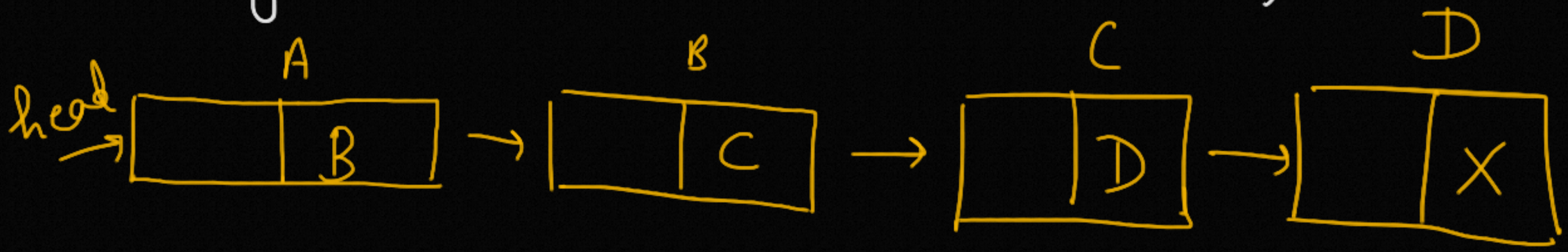
→ Delete an element (will be covered in today's slide).

→ Search an element

→ Count / Traverse the Linkedlist

PS: w.r.t Singly Linked list

Deleting the first element of the LL

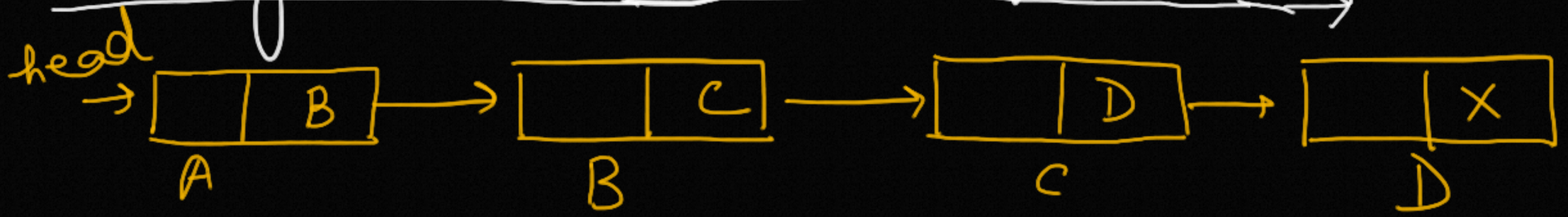


- Remove A Node.
- To build the intuition, do draw the O/p diagram.
- It will look something like this:

head = head.next

TC: O(1)

Deleting the last element from LL



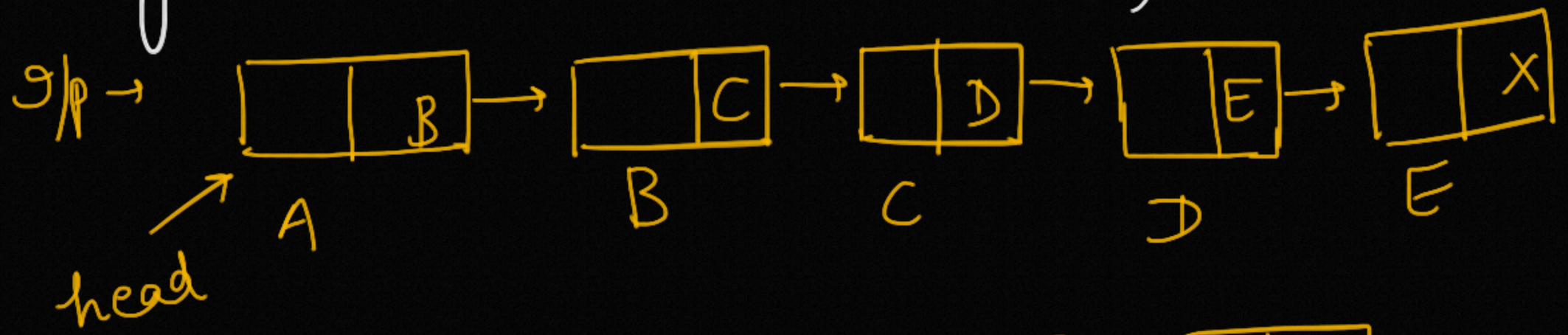
→ Traverse the LL and reach to the point where temp.next.next = None

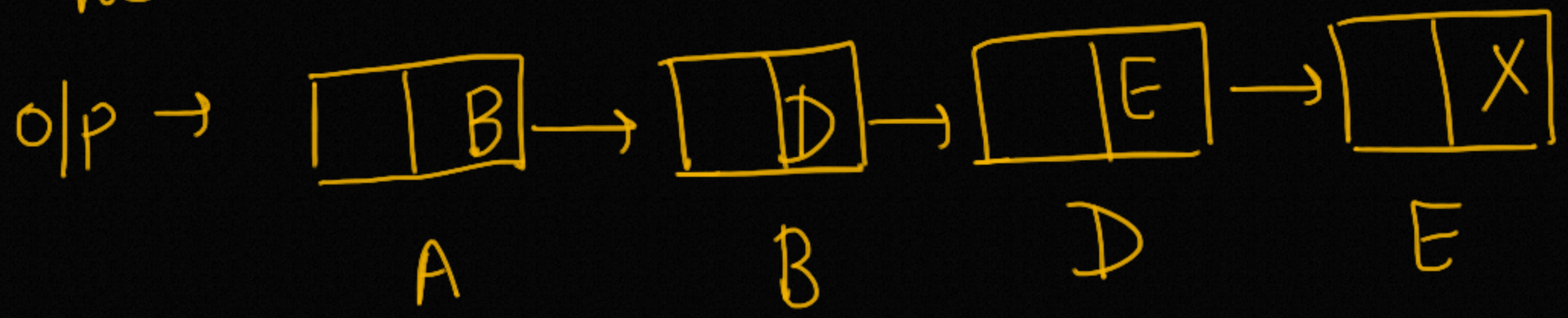
[To understand the traversing part; please refer to my last post]

→ if temp.next.next == None: TC: O(N)

temp.next = None

Deleting the mid element of the LL





→ calculate the mid.

→ To calculate: mid = len(LL)//2

→ To calculate the length of LL, please refer last post.

→ once the len of the LL is calculated then traverse in the LL until the temp reach to the mid pos-1

→ if position of temp == mid-1 :

temp.next = temp.next.next

TC: O(N)

key points:

→ Do think about the edge cases. Think of it as a homework. 

→ I have left some edge cases on purpose.

Try to think: what if the LL has only head node and no other nodes, or what if the LL has only 2 nodes.

→ If not clear, feel free to ask.

Thank You 

For queries, feel free to comment | dm. 

Happy Coding!!!