

## ⑫ Array to DLL

- Create head node
- traverse through the array from 1 to n creating new node for each element.
- & initially current is initialized to head node as & when we create new nodes we initialize current  $\rightarrow$  next to newnode & new nodes prev as current & then move the current ahead.  
& finally return the head.

### (13) Deletion of head in DLL

Edge Cases

- if list is empty
- if list has only element
- just move the head to next node by keeping a copy of the head
- now delete new head's prev
- copy of head's next should be deleted
- then delete copy of head.

### (14) Deletion of tail in DLL

Edge Cases:

- if list is empty
- if list has only 1 node.
- traverse till the last but one element then break out  
    & delete current's next  
    & set current's next to NULL



(15)

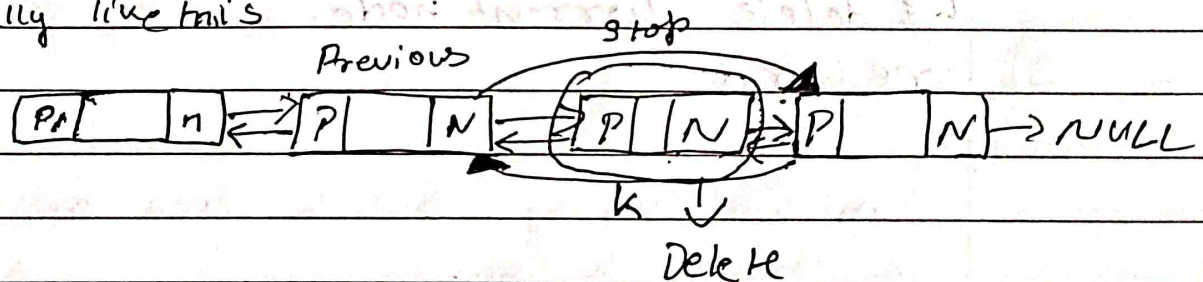
kth pos deletion in DLL

Edge cases

- if  $k \leq 0$  or list is empty
- if  $k = 1$  - you move the head to next node
  - also only if  $head \neq nullptr$  only then remove its prev

- traverse through the array till last even node while keeping track of previous node & node count
- now if  $node\ count == k$  then
  - ↳ prev nodes next to current nodes next
  - ↳ connect current nodes next nodes prev to current nodes previous node
  - ↳ then delete current & return head.

basically like this



Edge case

- if  $k = \text{tail value}$
- then just connect previous nodes next to NULL
- Delete current & return head.

## ①6 Delete given node

### Edge cases

- if given node is null just return null
- if given node is head
  - ↳ check if there is a node after head
  - if yes then set that next nodes prev to null
  - ↳ delete the head
  - ↳ return.
- if ~~prev~~ given node is tail then
  - ↳ connect tails previous node to null
  - ↳ Delete node
  - ↳ return.
- if its a middle node then
  - ↳ connect previous to current's front node
  - ↳ connect front nodes prev to previous
  - ↳ delete current node.
  - return



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