04 December 2025 14:34

delete_atpos(int pos);

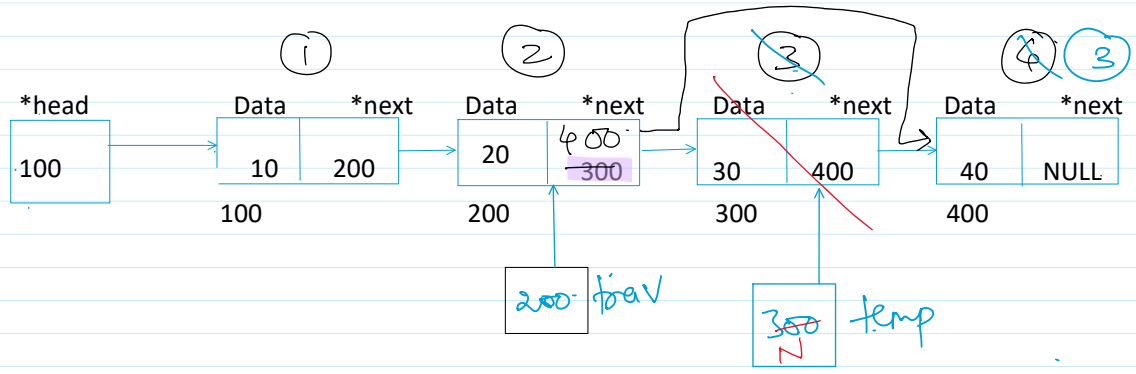
1) If (head == NULL) // list is empty
   Printf("List is Empty ");

2) Pos == 1
   Delete_first(); ✓

3) Pos == count_nodes()
   delete_last()

4) Pos < 1 || pos > count_nodes() → printf("Invalid");

pos = 3.



1) Traverse till pos-1 node.
   Struct node *trav = head;

   For(int I =1; i<pos-1; i++)
      Trav = trav->next;

2) Take a backup of the pos node(3rd node)
   In a temp pointer.
   Struct node *temp = trav->next;

3) Link the pos-1 node(2nd) to pos+1 node(4th)
   Trav->next = temp->next;

4) Free the temp node.
   Free(temp);
   Temp = NULL;

200->next = 400
trav->next = 300->400;
trav->next = temp->next;

Best case : if pos Is 1 : O(1)
Worst case : if pos == count : O(n)
Avg : O(n)