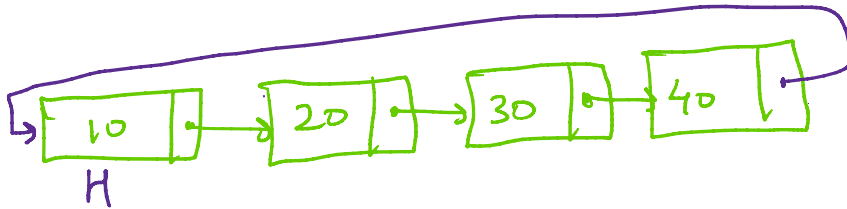
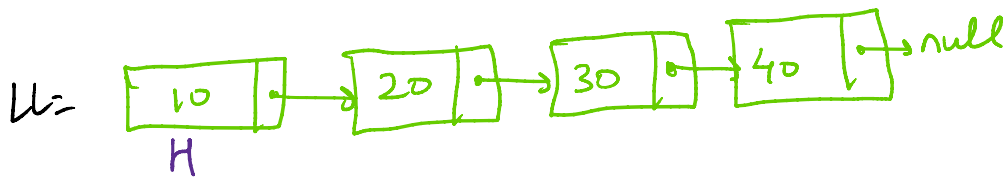


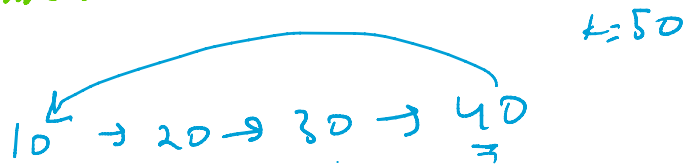
10th March

10 March 2022 21:09

Circular Linked List :-



Insertion :- $T(\Rightarrow) O(N)$

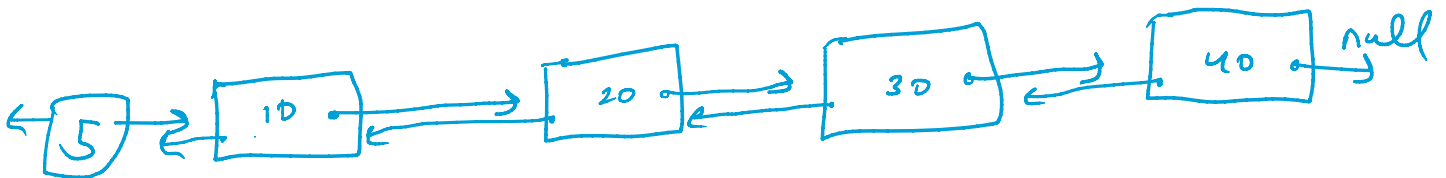


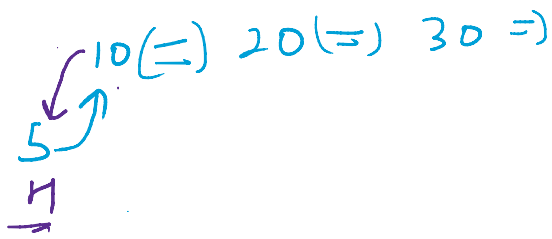
while (temp . next != head) {

{

temp . next = newNode ;
newNode . next = head ;

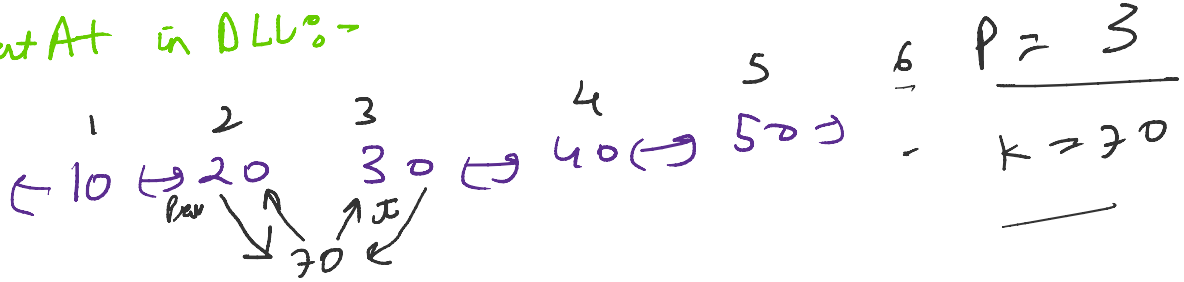
Doubly Linked List :-





```
public Node insertFirst(int k) {
    Node node = new Node(k);
    node.next = head;
    if (head != null) {
        head.prev = node;
    }
    head = node;
    this.size++;
    return head;
}
```

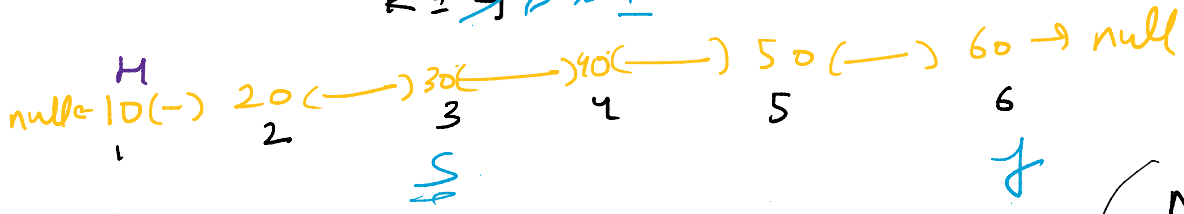
Insert At in DLL:-



```
Node prev = temp.prev;
node.next = temp;
node.prev = temp.prev;
prev.next = node;
temp.prev = node;
return head;
```

Deletion in DLL :- kth from the end

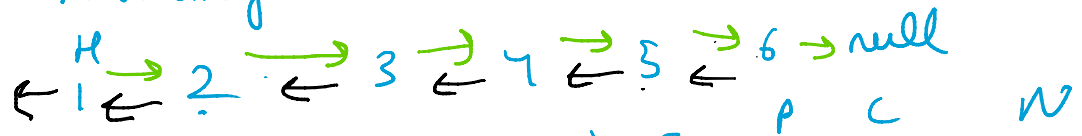
K = 4



while(k > 1)

(N.prev = P
P.next = N)

Reversing in DLLs:-



while(C != null)

N = C.next
C.next = P
C.prev = N

$$\begin{array}{l} P = C \\ \hline C = N \end{array}$$