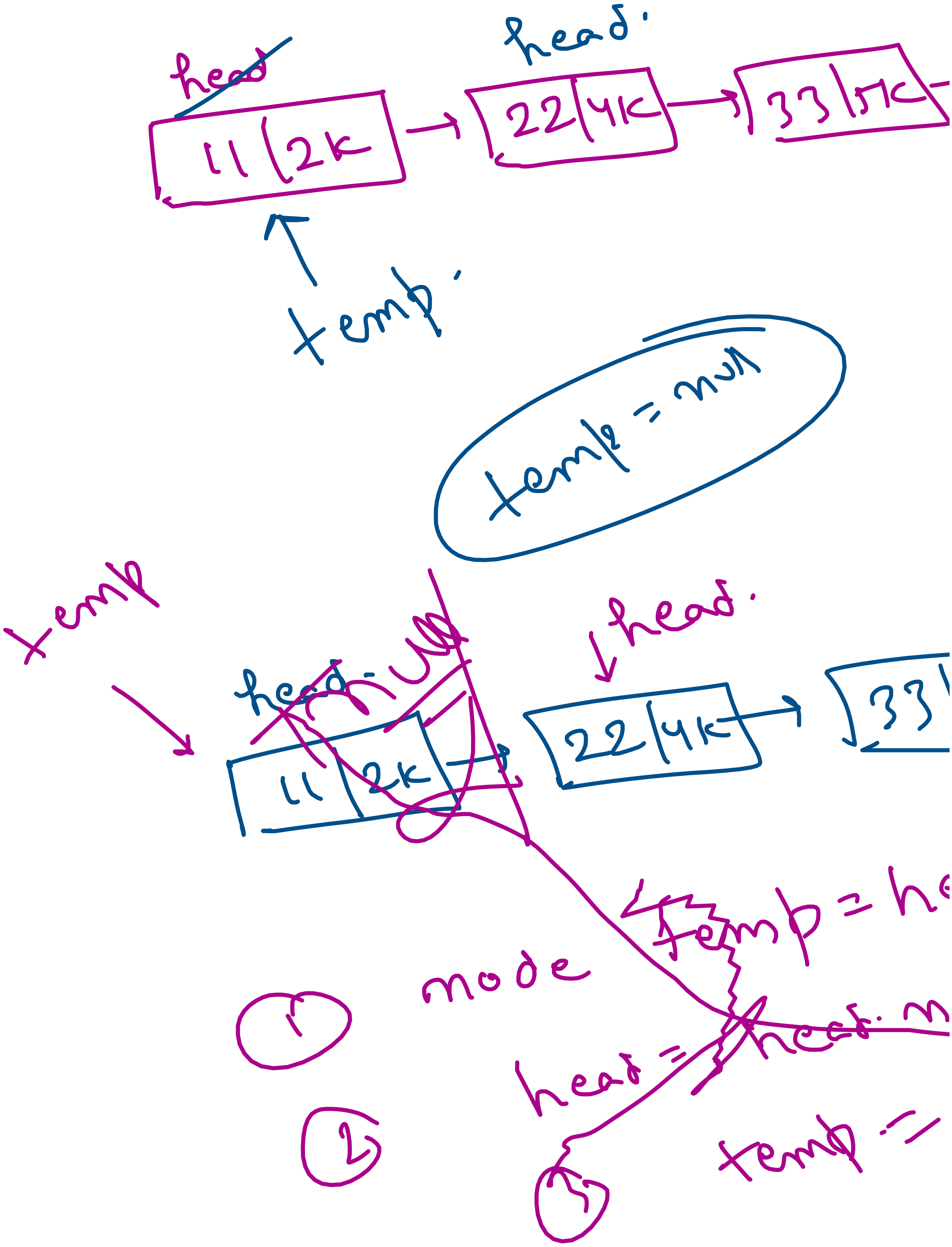
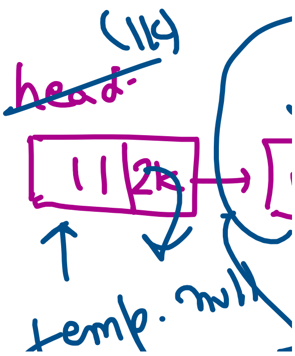
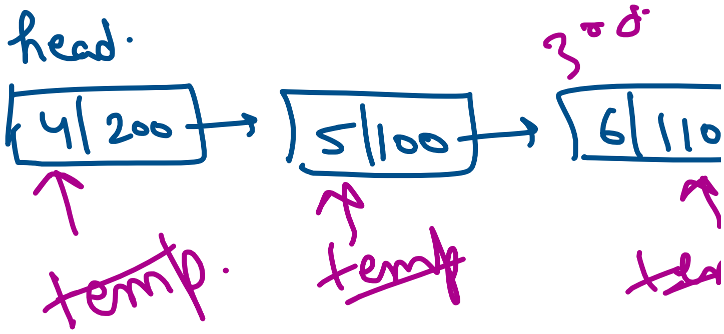
13 February 2024 14:24

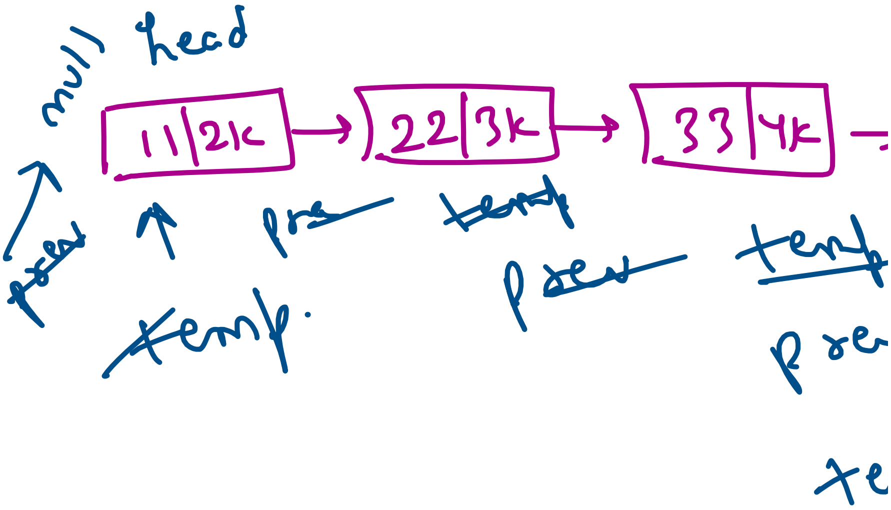


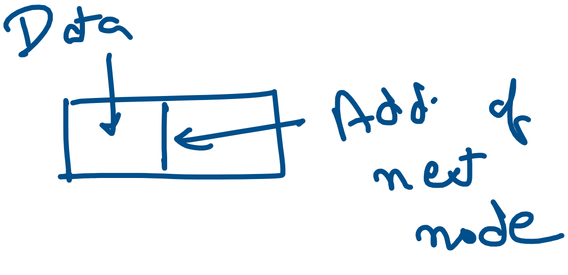
```
public static node deletionAtHead(node head){
  if(head == null){
    System.out.println("Deleting an Empty Node");
    return null;
  }
  if(head.next == null){
    System.out.println("Deleting single node");
    return null;
  }
  node temp = head;
  head = head.next;
```

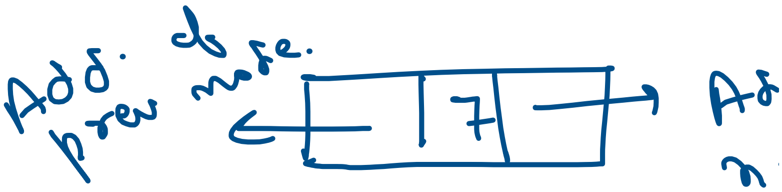


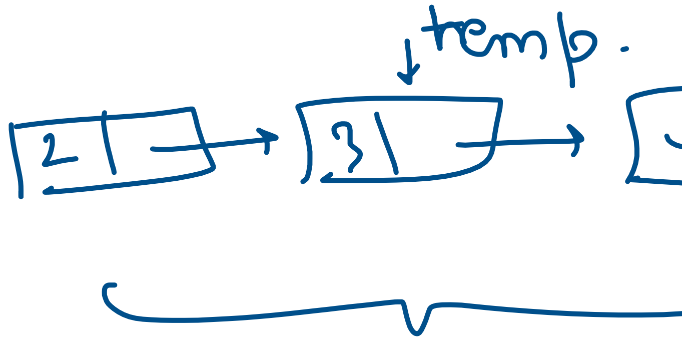
```
  temp = null;
  return head;
}
```



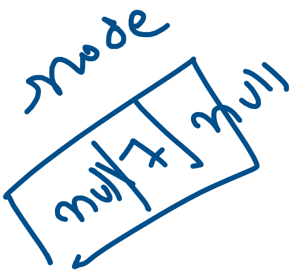




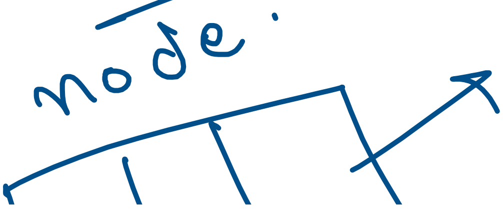




```
class node{
    int data;
    node next;
    node prev
    node(va
        this. d
        this.
        this
    }
```



Doubly L.L



Add. d

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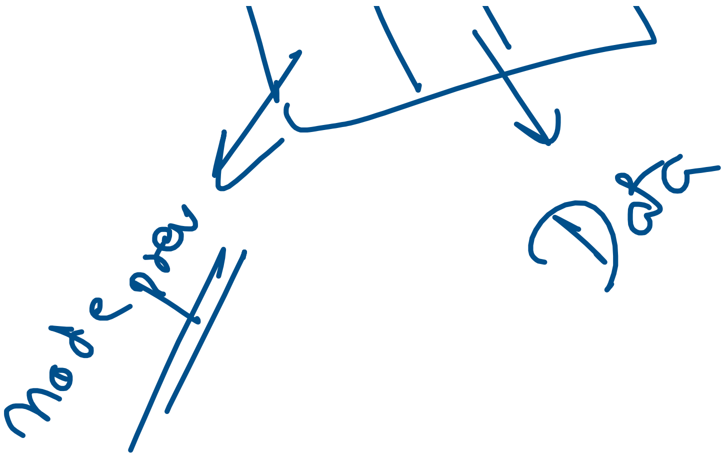
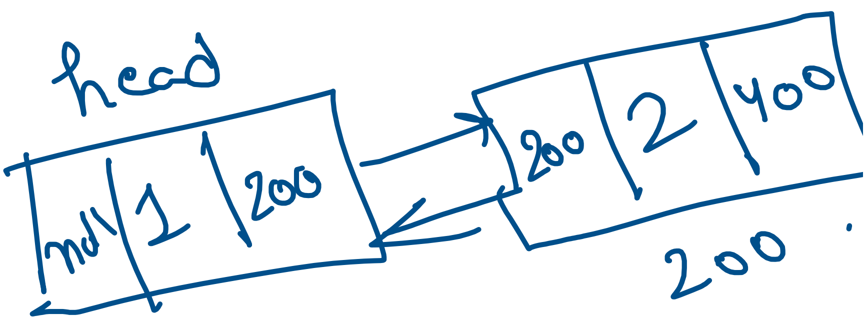
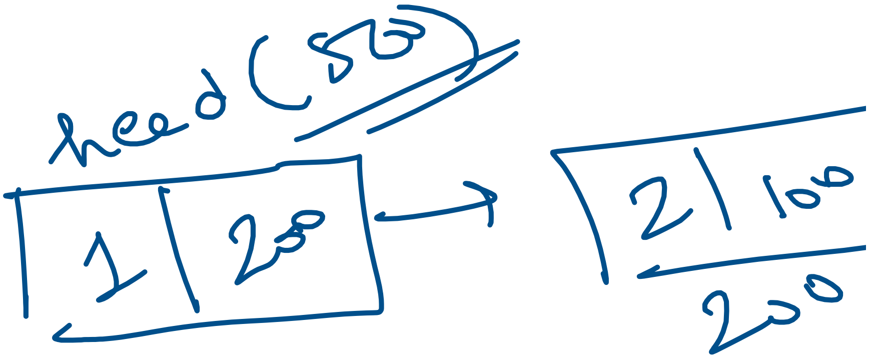
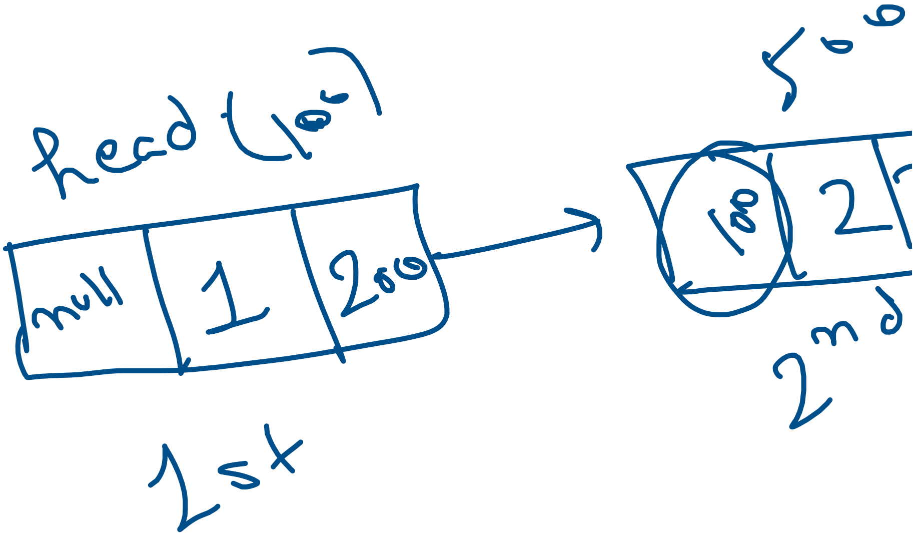
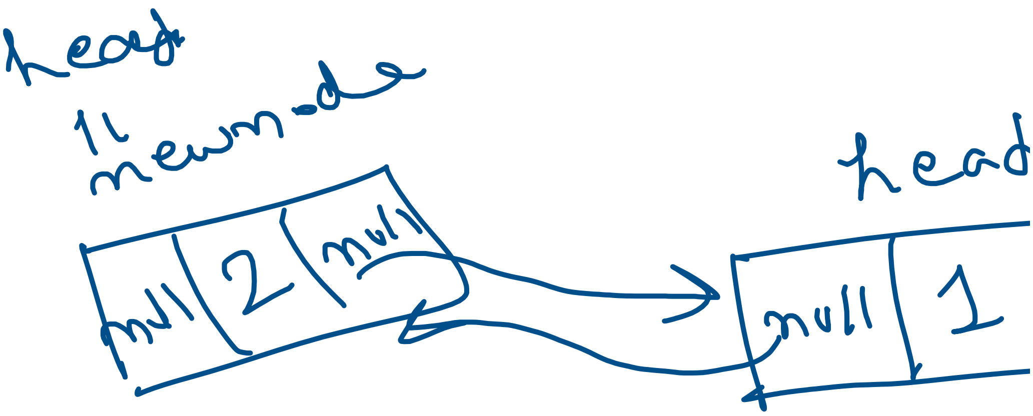

node prev
Data


head
null
1
200
200
2
400
200

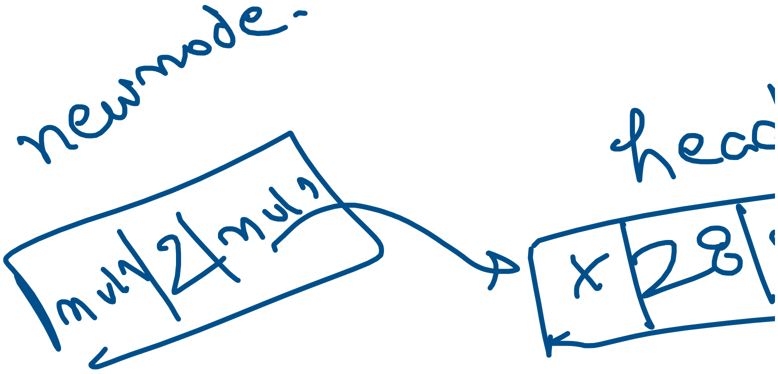

head (500)
1
200
2
100
200


head (100)
null
1
200
500
100
2
2nd
1st



① new node

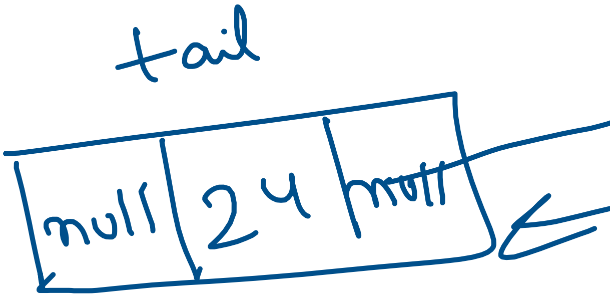
②



① new node

② nn.n

③ n

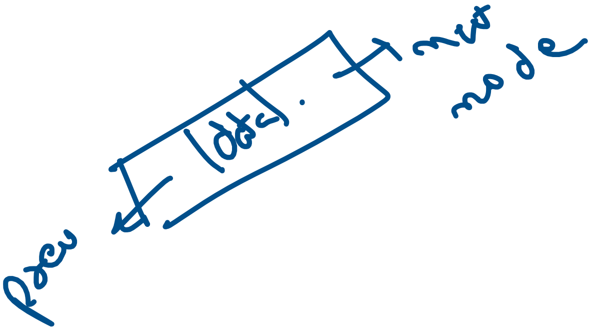


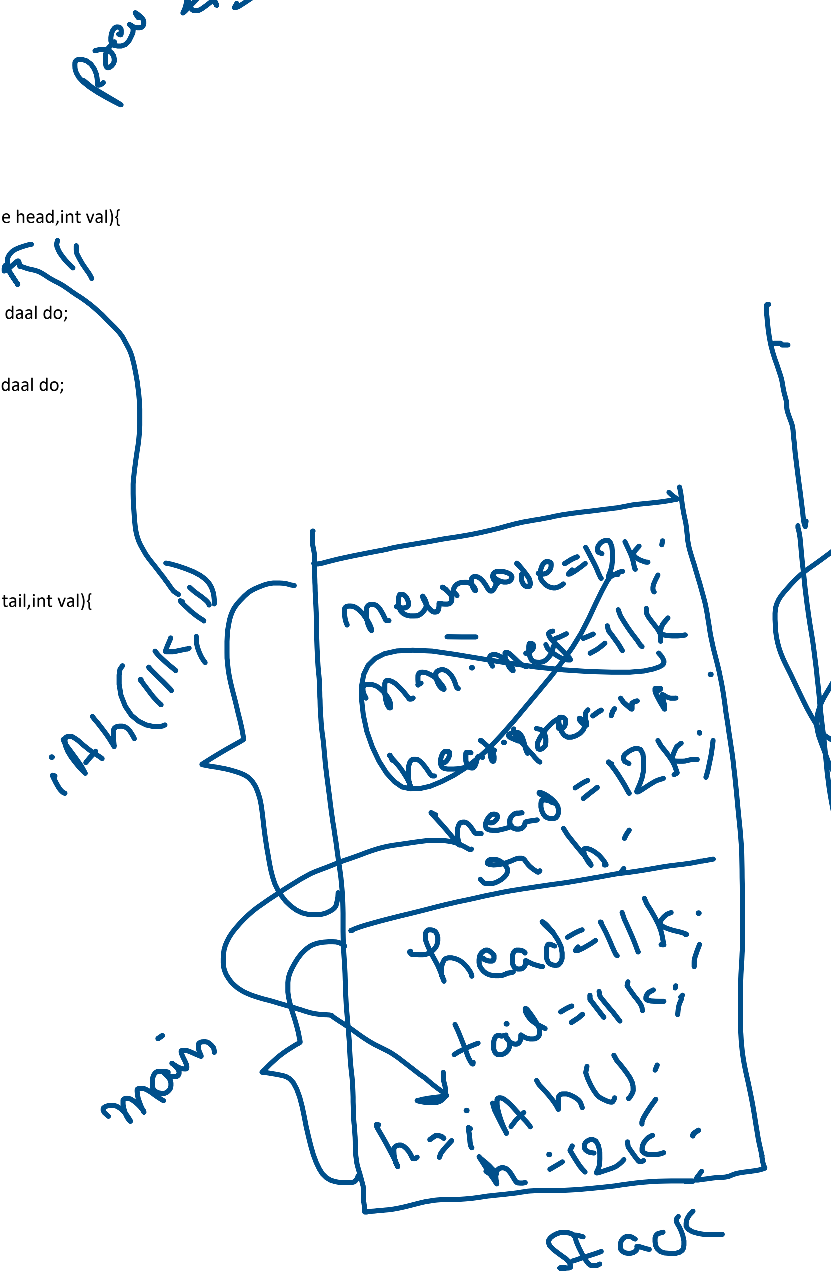
① new

② tai

③

```
import java.util.*;

public class Main {
 static class node{
  int data;
  node next;
  node prev;

  node(int val){
   this.data = val;
   this.next = null;
   this.prev = null;
  }
 }

 public static node insertionAtHead(node head,int val){
  //task 1: new node create;
  node newnode = new node(val);

  //task 2: new node ke next mein head daal do;
  newnode.next = head;

  //task 3: head ke prev mein newnode daal do;
  head.prev = newnode;

  //task 4: head update;
  head = newnode;

  return head;
 }

 public static node insertionAtTail(node tail,int val){
  node newnode = new node(val);

  tail.next = newnode;
  newnode.prev = tail;

  tail = newnode;
  return tail;
 }

 public static void traverse(node head){
  node temp = head;
  while(temp != null){
   System.out.print(temp.data + "->");
   temp = temp.next;
  }
 }
 public static void main(String[] args) {
   ~~node head = new node(12);~~
   node tail = head;

   head = insertionAtHead(head,11);
   head = insertionAtHead(head,11);
   head = insertionAtHead(head,11);
   head = insertionAtHead(head,11);

   traverse(head);
   System.out.println();

   tail = insertionAtTail(tail,14);
   tail = insertionAtTail(tail,14);
   tail = insertionAtTail(tail,14);
   tail = insertionAtTail(tail,14);
   tail = insertionAtTail(tail,14);

   traverse(head);
   System.out.println();
```





```
  }
}
```