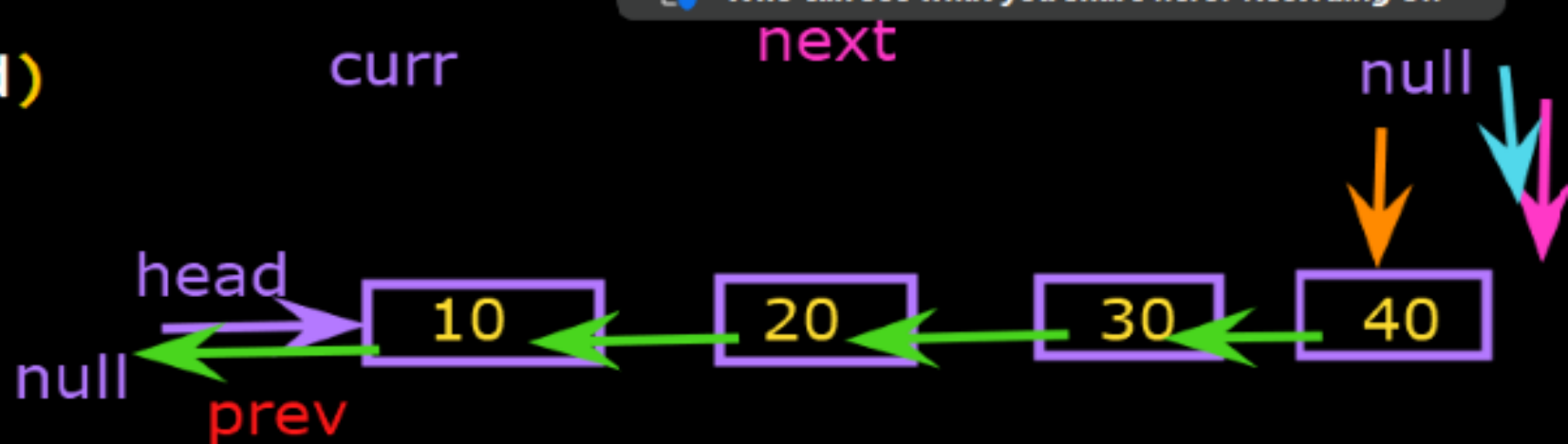# Sep22 : Day 7

Kiran Waghmare

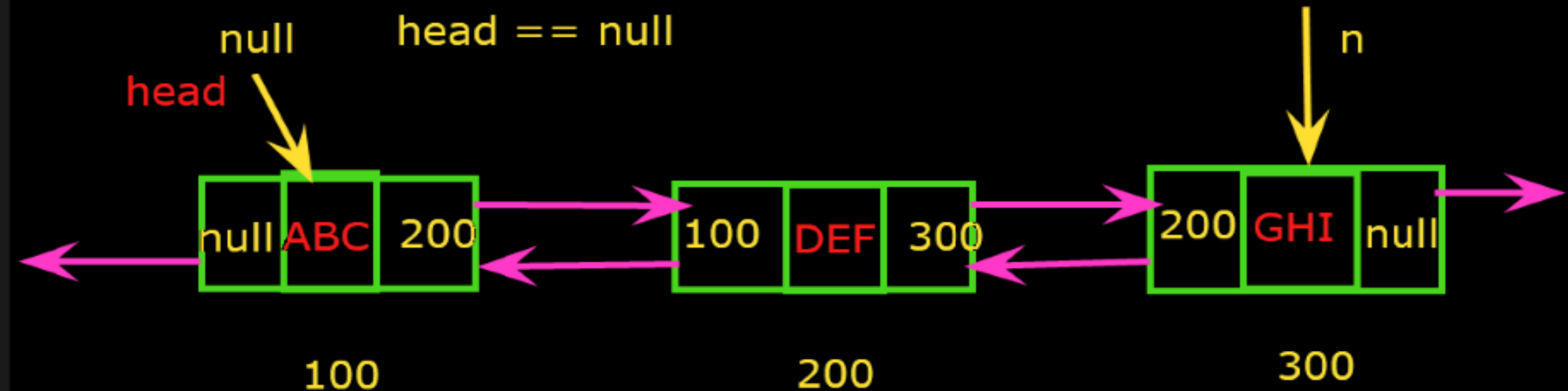CDAC Mumbai

```java
Node reverse(Node head)
{
    Node prev = null;
    Node curr = head;
    Node next = null;

    while(curr != null)
    {
        next = curr.next;
        curr.next = prev;
        prev = curr;
        curr = next;
    }
    head = prev;
    return head;
}
```
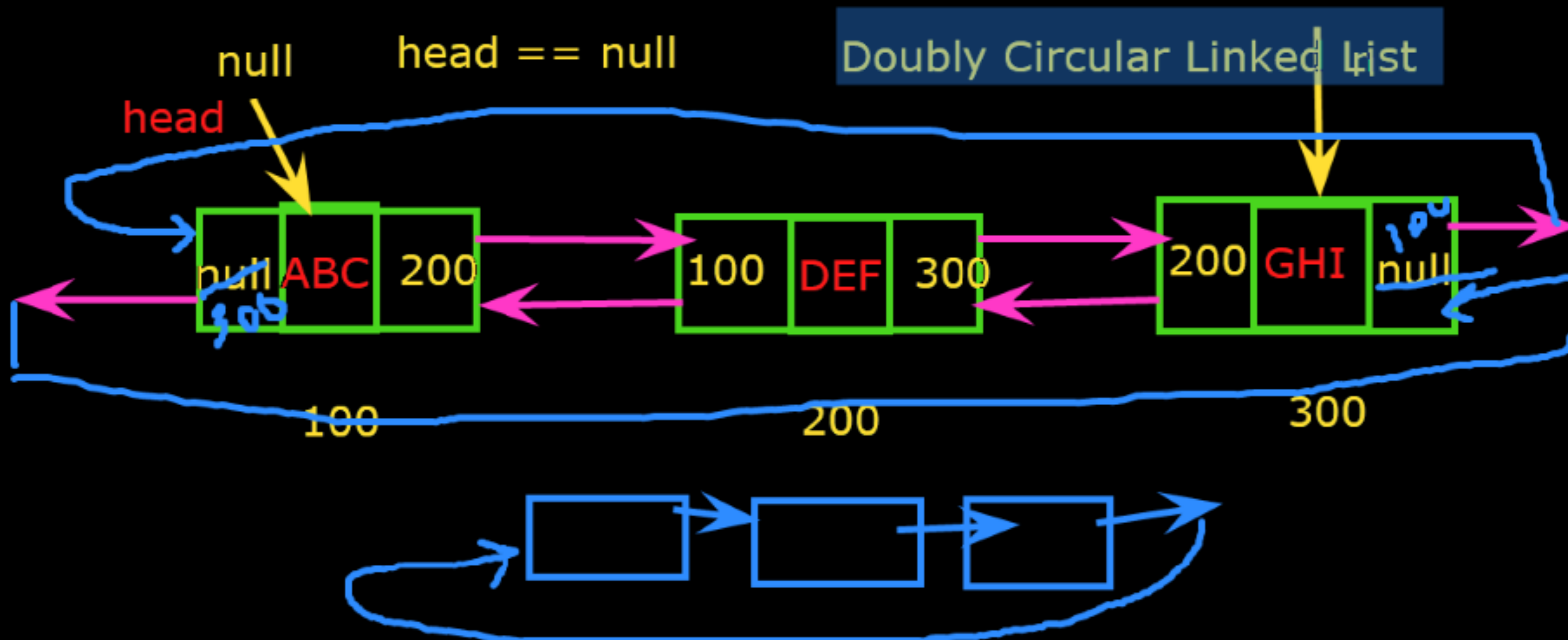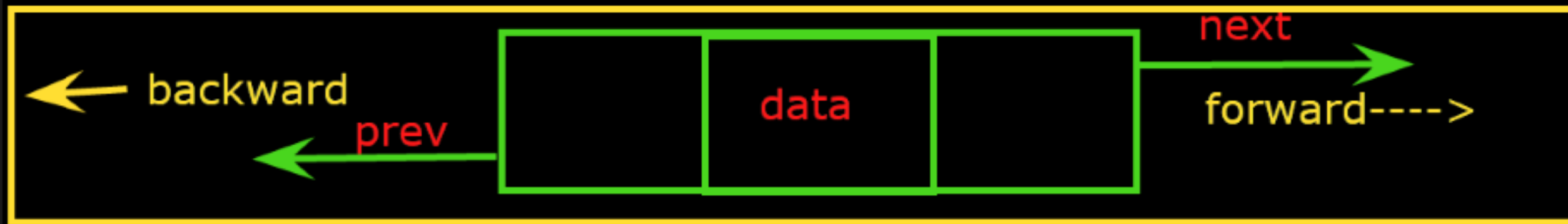
curr

next

null

head

null

prev

10 → 20 → 30 → 40

prev

next = curr.next

curr.next = prev

curr = next

Doubly Linked List:

----

next

backward

prev

data

forward---->

null

head == null

head

null ABC 200

100 DEF 300

200 GHI null

n

100

200

300

Doubly Circular Linked List

```
        data = d;
        prev=next=null;
    }
}

}
```
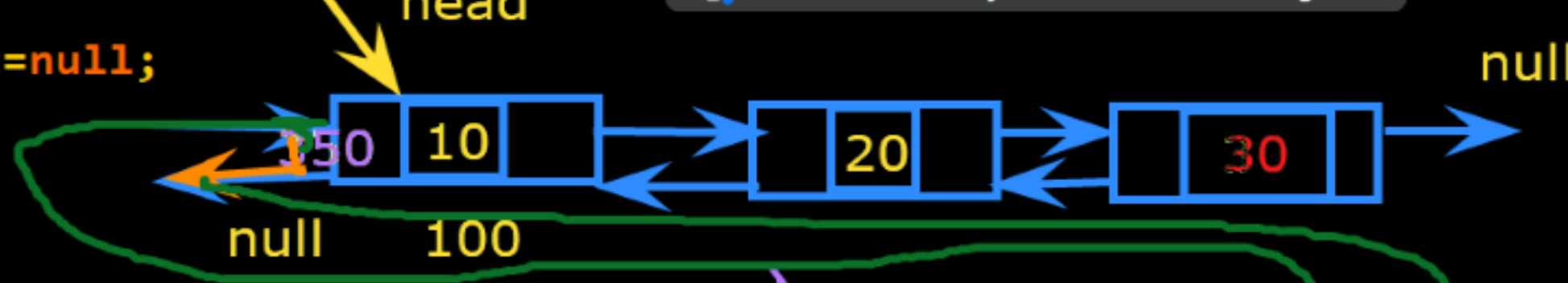


```
Insertion Operation:
----------------------
case 1: Insert at begining.

static void insert(int new_data)
{
    Node new_Node = new Node(new_data);
    new_Node.next = head;
    new_Node.prev = null;
    if(head != null)
        head.prev = new_node;
    head = new_Node;
}
```