SNS COLLEGE OF ENGINEE

Kurumbapalayam(Po), Coimbatore – 641 107
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Department of Artificial Intelligence an

Course Name: 23ITB201 Data structures a

II Year / III semester

Unit I – List ADTs

Topic: Circularly Linked list

Circularly Linked lis

inked list is basically a linear linked list that may be singly or

fference is that there is no any NULL value terminating the lis

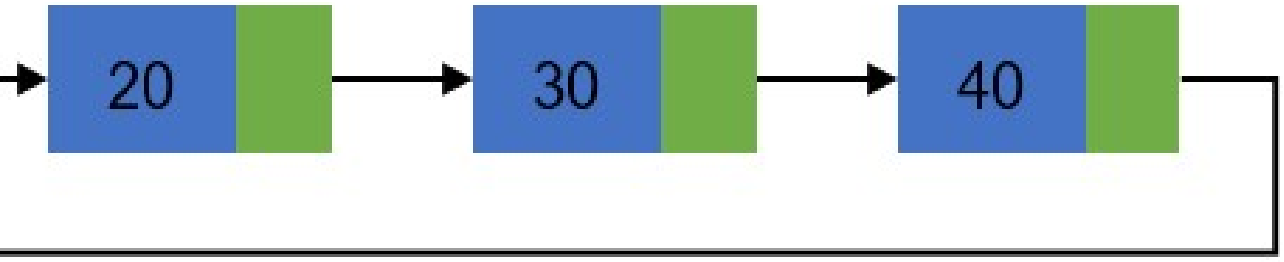
points to the next node and last node points to the first node, t

iations:

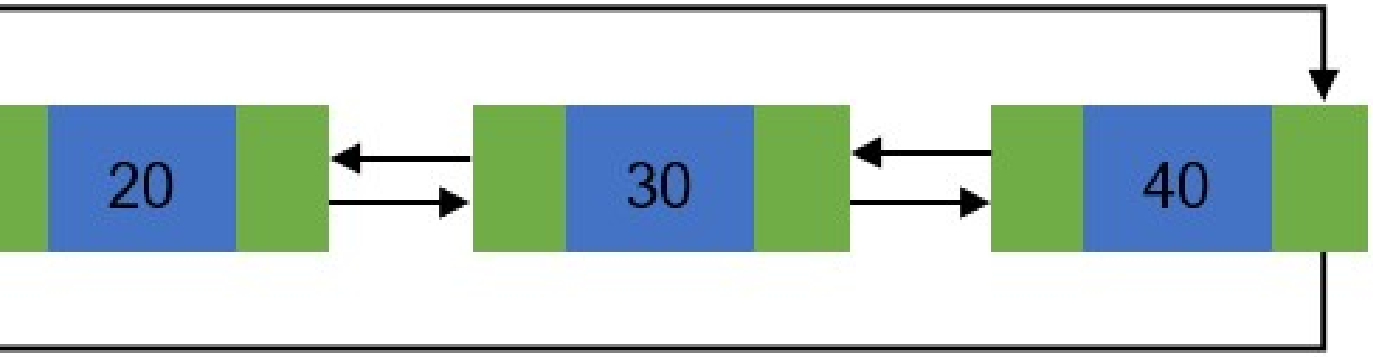
Singly linked list.

doubly linked list.

e of Circular linked list



Circular Linked List



Doubly Circular Linked List

Advantages of C

- Entire list can b
  node.
- Circular lists ar
  structure when
  accessed in a ci
- we can easily tr
  node, which is
  linked list.

list

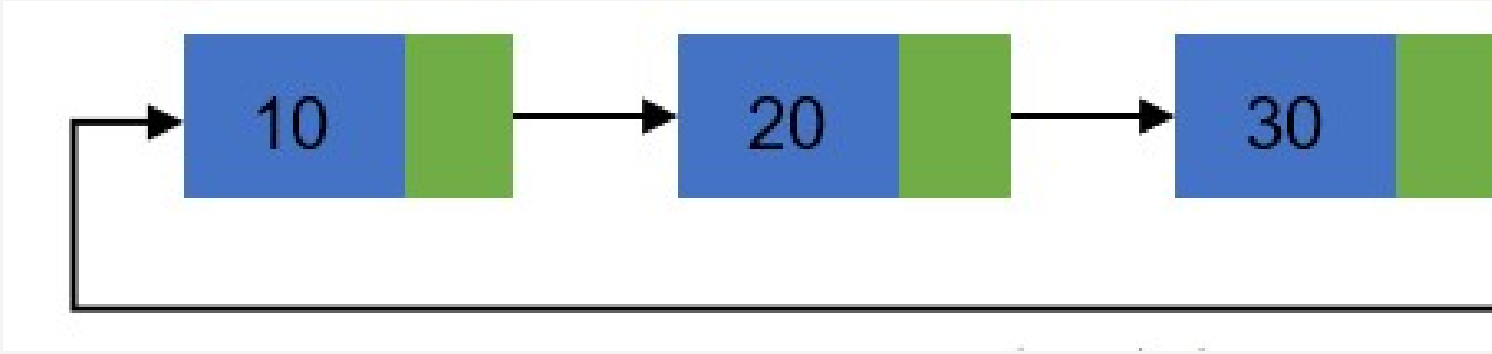
t beginning in circular Singly linked list

```
rt_begin(int data)


de *newNode, *temp;
 (struct node *)malloc(sizeof(struct node));
data = data;
next = head;
ad;
p->next != head)


mp->next;


t = newNode;
wNode;
```



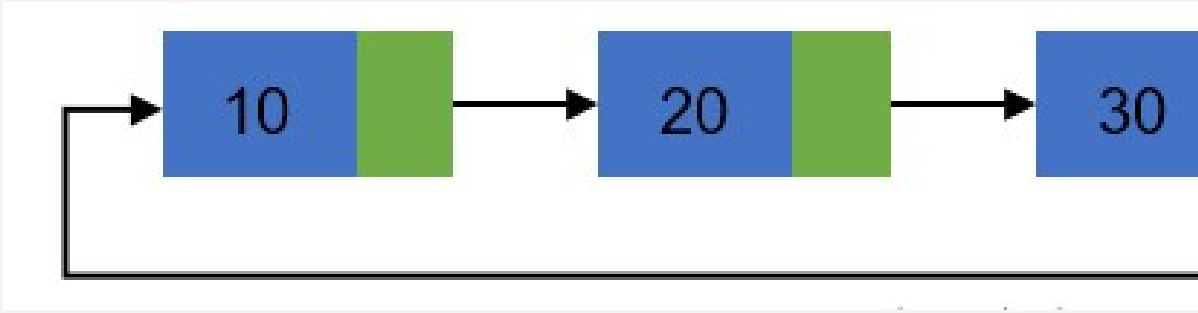
t end in circular Singly linked list

```
ertend (int data)


ode * temp, newnode;
= (struct node *)malloc(sizeof(struct node));
>data = data;
ead;
mp -> next != head)


emp -> next;


xt = newnode;
->next =head;
```

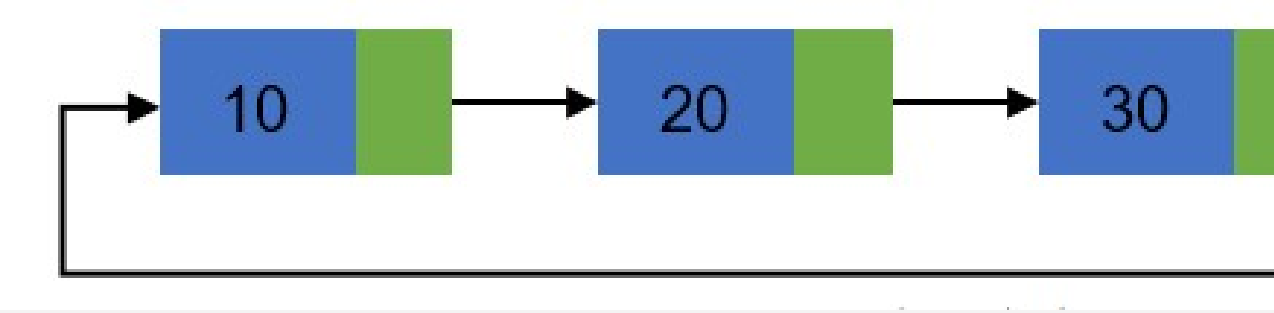


```
rst node- CLL
etefirst (int data)


ode * temp, todelete;
 = head;
ead;
mp ->next != head)


mp -> next;


ead -> next;
next =head;
elete);
```



ying the content of the list- CLL

```
splayList()

uct node *temp;
 temp = head;
 do {
      printf("%d" , temp->data);
      temp = temp->next;

 }while(temp != head);
```

```
h operation
earch(struct node *head, int key)


truct node *current = head;
o


 if (current == NULL)
rn;
urrent->data == key)
                return index;
rent = current->next;
 } while (current != head);
```

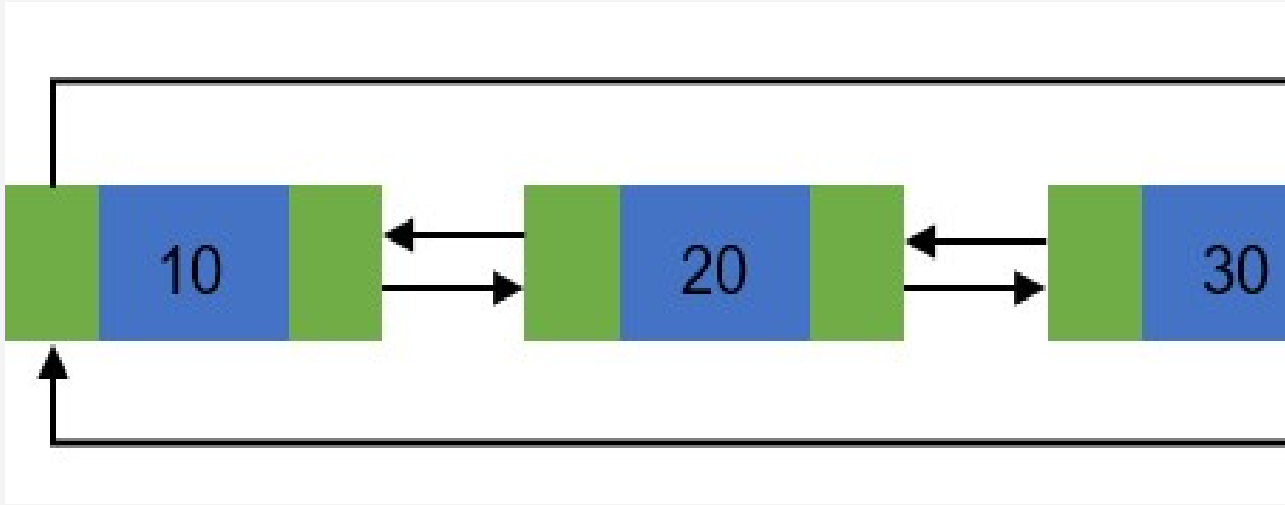
beginning

ly linked list –insertion at beginning

```
t_first()


le *newnode;
(struct node *)(malloc(sizeof(struct


v = newnode;
wnode;
v = last;
t = head;
```



used for performing polynomial operations like addition,

multiplication etc.,

ructure can be implemented using linked list

tructure can be implemented using linked list.

ference between Circularly Linked list and Doubly linked list?

vantages of Circularly linked list.


thank
you