DAYANAND
1BM19CS04

DLL

```
#include<stdio.h>
#include<stdlib.h>
  struct node{
    int data;
    struct node *next;
    struct node *prev;
};
 struct node *head=NULL;
   void insert_Left()
   { struct node *new_node;
     new_node=(struct node*)malloc(sizeof(struct node));
       Printf("Enter the item\n");
   Scanf("%d",&new_node->data);
    new_node->next=NULL;
    new-node->PREV=NULL;
     if(head=NULL)
     {
         head=new_node;
     }
     else
     { new_node->next=head;
         head->PREV=new_node;
           head=new_node;
     }}
     void insert_right()
   { struct node *new_node,*temp;
     new-node=(struct node*)malloc(sizeof(struct node
```

Python

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```
printf("Enter the item\n");
scanf("%d", &new_node->data);
 new_node->next=NULL;
 new_node->prev=NULL;
    if (head==NULL)
    { head =new_node;
    }
 else
{ temp= head;
    while (temp->next!=NULL)
       temp= temp->next;
       temp->next=new_node;
        new_node->prev=temp;
  } }
  void del()
{ struct node *temp;
    int ele;
   if (head==NULL)
{ printf("Empty List\n");
       return;
 }
 printf("Enter the element to be deleted\n");
  scanf("%d",&ele);
   temp=head;
while (temp->data!=ele)
{ temp= temp->next;
  if (temp==NULL)
  {
   Printf("Element is not in the list\n");
   break;
}}
```

Pathod

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```
if (temp==head)
    {
       head = head->next;
    }
    else if (temp->next=NULL)
              temp=temp-> prev;
              temp->next=NULL;
    }
    else {
     temp->prev->next=temp->next;
     temp->next->prev=temp->prev;
    } }
     void display ()
{
    Struct node *ptr;
     ptr=head;
     while (ptr!=NULL)
{    printf("%d\t",ptr->data);
        ptr=ptr->next;
    }
     Printf ("\n");
}
  int main()
{ int choice;
    while(1)
{
 Printf (" 1. Insert at the Left\n");
  Printf("2. Insert at the right\n");
   Printf(" 3. Delete\n");
    Printf(" 4. Display\n");
```

Rathod

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```
printf("5.Exit\n");
Printf(" Enter your choice \n");
  scanf("%d", &choice);
    Switch (choice)
    {
      case 1: Insert_left(); break;
      case 2: insrt_right(); break;
      case 3; del(); break;
       case 4; display(); break;
        case 5: exit(0);
      }
   }
}
```

Rathod