```
#include<stdio.h>
#include<stdlib.h>
struct node
{
        int data;
        struct node *next;
        struct node *prev;
};
struct node *head=NULL;
void insert_left()
{
        int listele;
        struct node *new_node,*temp;
        printf("Enter the element in the list before which you want to insert newnode\n");
        scanf("%d",&listele);
        new_node=(struct node*)malloc(sizeof(struct node));
        printf("Enter the new node data\n");
        scanf("%d",&new_node->data);
        new_node->next=NULL;
        new_node->prev=NULL;
   if(head==NULL)
   {
      printf("Empty list\n"); return;
   }
        temp=head;
   if(head->data==listele)
   {
       new_node->next=head;
                        head->prev=new_node;
                        head=new_node;
        return;
   }
        while(temp->next->data!=listele)
        {
                temp=temp->next;
                if(temp==NULL)
                {
                        printf("Element is not found in the list");
                        return;
                }
        }
        new_node->next=temp->next;
        temp->next=new_node;
        new_node->prev=temp;
        new_node->next->prev=new_node;
}
void insert_end()
{
        struct node *new_node,*temp;
        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
        {
```

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                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;
                }
         }
         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 *temp;
         temp=head;
         while(temp!=NULL)
         {
                 printf("%d\t",temp->data);
                 temp=temp->next;
         }
         printf("\n");
}
```

```
int main()
{
        int choice;

         while(1)
         {
                        printf(" 1. Create a double linked list \n");
                        printf(" 2. Insert at the Left of node\n");
                        printf(" 3. Delete \n");
                        printf(" 4. Display\n");
                        printf(" 5. Exit\n");
                        printf("Enter your choice\n");
                        scanf("%d",&choice);
                        switch(choice)
                        {
                                case 1: insert_end();break;
            case 2: insert_left(); break;
                                case 3: del(); break;
                                case 4: display(); break;
                                case 5: exit(0);
                        }
         }
}
```