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```c
#include <stdio.h>
#include <stdlib.h>
struct node
{
    int data;
    struct node * next;
    struct node * prev;
};
struct node * head = NULL;
void insert()
{
    struct node * new_node;
    new_node = (struct node *)malloc(sizeof(struct node));
    printf("enter item\n");
    scanf("%d", &new_node->data);
    new_node->prev = NULL;
    new_node->next = NULL;
    if (head == NULL)
    head = new_node;
    else
    {
```

```c
            new_node -> next = head;
            head -> prev = new_node;
            head = new_node;
        }
    }
void insert()
{
    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
    {
        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;
}
```

```c
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 not in list.");
            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");
}
```

```c
void main ()
{
    int choice;
    while (1)
    {
        printf ("1. Insert at left, 2. Right, 3.Delete
                4. Display   5, Exit");
        printf ("Enter the choice:");
        scanf ("%d", &choice);
        switch (choice)
        {
            case 1: insertl();
                    break;
            case 2: insertr();
                    break;
            case 3: del();
                    break;
            case 4: display();
                    break;
            case 5: exit(0);
                    break;
        }
    }
}
```