

```
#include<stdio.h>
#include<stdlib.h>

int pos,ch,cho;

struct node{
    int data;
    struct node* next;
}*start=NULL;
struct node* current=NULL;

void add_node()
{

    struct node * nn;
    nn=(struct node*)malloc(sizeof(struct node*));
    nn->next=NULL;
    printf("Enter the data:");
    scanf("%d",&nn->data);
    if(start==NULL)
    {
        start=nn;
        current=nn;
    }
    else
    {
        current->next=nn;
        current=nn;
    }
}

void delet_beg()
{
    struct node * temp=start;
```

```
if(start==NULL)
{
    printf("Empty!!!!");
    return;
}

else
{
    start=start->next;
    free(temp);
}

}

void delet_end()
{
    struct node * temp=start;

    if(start==NULL)
    {
        printf("Empty!!!!");
        return;
    }

    else
    {
        while(temp->next!=current){
            temp=temp->next;
        }

        temp->next=NULL;
        free(current);
        current=temp;
    }
}
```

```
}

void delet_pos(pos)
{
    struct node * temp=start;

    if(start==NULL)
    {
        printf("Empty!!!!");
        return;
    }

    else
    {
        struct node*temp=start;
        struct node* temp1;
        struct node* temp2;
        if(pos==0)
        {
            delet_beg();
        }
        for(int i=1;i<pos-2;i++)
        {
            temp=temp->next;
            temp1=temp->next;
            temp2=temp1->next;
            temp->next=temp2;
            free(temp1);
        }
    }
}

void display()
{
    if(start==NULL)
    {
        printf("Linked List is empty!!!");
    }
}
```

```

    return;
}

struct node*temp=start;

while(temp!=NULL)
{
    printf("%d ->",temp->data);

    temp=temp->next;

}

printf("NULL");

}

void main()
{
    while(1)

    {

printf("\n 1.Add node\n 2.Delete at Beginning\n 3.Delete at End\n 4.Delete at Position\n
5.Display\n 6.Exit\n Enter your CHOICE:");

scanf("%d",&ch);

switch(ch)

{

case 1:add_node();

    break;

case 2:delet_beg();

    break;

case 3:delet_end();

    break;

case 4:printf("Enter the position to delete:");

scanf("%d",&pos);

delet_pos();
}

```

```
        break;  
    case 5:display();  
        break;  
    case 6:printf("Exiting Program.....");  
        break;  
    default:printf("INVAILD CHOICE!!");  
}  
  
}  
}
```

OUTPUT:

```
4.Delete at Position
5.Display
6.Exit
Enter your CHOICE:1
Enter the data:34

1.Add node
2.Delete at Beginning
3.Delete at End
4.Delete at Position
5.Display
6.Exit
Enter your CHOICE:55
INVALID CHOICE!!
1.Add node
2.Delete at Beginning
3.Delete at End
4.Delete at Position
5.Display
6.Exit
Enter your CHOICE:1
Enter the data:32

1.Add node
2.Delete at Beginning
3.Delete at End
4.Delete at Position
5.Display
6.Exit
Enter your CHOICE:4
Enter the position to delete:1

1.Add node
2.Delete at Beginning
3.Delete at End
4.Delete at Position
5.Display
6.Exit
Enter your CHOICE:5
34 ->NULL
1.Add node
2.Delete at Beginning
3.Delete at End
4.Delete at Position
5.Display
6.Exit
Enter your CHOICE:6
Exiting Program.....
```