

3a ds

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#include <stdio.h>

#include <stdlib.h>

struct node
{
    int info;
    struct node*link;
};

struct node*root=NULL;

int c=0;

void display()
{
    struct node*temp;
    if(root==NULL)
        printf("list is empty\n");
    else
    {
        temp=root;
        while(temp!=NULL)
        {
            printf("%d-->\t",temp->info);
            temp=temp->link;
        }
    }
}

void delfront()
{
    struct node*temp;
```

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    if(root==NULL)
    printf("list is empty");
    else
    {
        temp=root;
        printf("item deleted is %d\n",temp->info);
        root=temp->link;
        free(temp);
        c--;
    }
}

void insfront()
{
    struct node*temp,*p;
    int i,loc;
    temp=(struct node*)malloc(sizeof(struct node));
    printf("enter the element\n");
    scanf("%d",&temp->info);
    temp->link=NULL;
    printf("enter the location\n");
    scanf("%d",&loc);
    if(loc>c+1 || loc==0)
    printf("invalid location");
    else if(loc==1)
    {
        temp->link=root;
        root=temp;
        c++;
    }
}

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else{
    p=root;
    for(i=1;i<loc-1;i++)
        p=p->link;
    temp->link=p->link;
    p->link=temp;
    c++;
}
}
int main()
{
    int ch;
    while(1)
    {
        printf("1.insert\n2.delete\n3.display\n");
        printf("enter your choice\n");
        scanf("%d",&ch);
        switch(ch)
        {
            case 1:insfront();
            break;
            case 2:delfront();
            break;
            case 3:display();
            break;
            default:printf("enter a valid choice\n");
            exit(0);
        }
    }
}

```