

Insert into a linked list (Simple one way)

```
#include<stdio.h>
struct student
{
    int value;
    struct student *Next;
};
typedef struct student node;
node *p,*q,*h,*p1;
main()
{
    int x,a,b,s;
    h=0;
    printf("Enter your value\n");
    for(;;)
    {
        scanf("%d",&x);
        if(x==99)
            break;
        else
        {
            p=(node*)malloc(sizeof(node));
            if(h==0)
            {
                h=p;
                p->value=x;
                p->Next=NULL;
                q=p;
            }
            else
            {
                p->value=x;
                p->Next=NULL;
                q->Next=p;
                q=p;
            }
        }
    }
    for(;;)
    {
        printf("Menu choice: 1 for Insertion/2 for
Display\n");
        scanf("%d",&x);
        if(x==1)
        {
            printf("I am in insertion\n");
            printf("Enter your insert value:\n");
            scanf("%d",&a);
            p=(node*)malloc(sizeof(node));
```

```
printf("Enter your insert option: 1 for 1st Insertion/2
for middle Insertion/ others for last Insertion\n");
        scanf("%d",&b);
        if(b==1)
        {
            printf("1st insertion\n");
            p->Next=h;
            p->value=a;
            h=p;
        }
        else if(b==2)
        {
            printf("Middle insertion\n");
            printf("Enter your search value:");
            scanf("%d",&s);
            p1=h;
            while(p1->value!=s)
                p1=p1->Next;
            p->Next=p1->Next;
            p1->Next=p;
            p->value=a;
        }
        else
        {
            p->Next=NULL;
            p->value=a;
            p1=h;
            while(p1->Next!=0)
                p1=p1->Next;
            p1->Next=p;
        }
    }
    else if(x==2)
    {
        printf("I am in display\n");
        p1=h;
        while(p1!=NULL)
        {
            printf("\nVALUE %d | ADDRESS %d\n",p1-
>value,p1);
            p1=p1->Next;
        }
    }
    else
        break;
}
}
```

Traverse into a linked list (Simple one way)

```
#include<stdio.h>
#include<stdlib.h>
struct student
{
    int value;
    struct student *next;
};
typedef struct student node;
node *p,*q,*h;
int main()
{
    int x;
    h=0,q=0;
    for(;;)
    {
        printf("-99 to break\n");
        scanf("%d",&x);
        if(x==-99)
            break;
        p=(node*)malloc(sizeof(node));
        if(h==0)
        {
            p->value=x;
            p->next=NULL;
            h=p;
            q=p;
        }
        else
        {
            p->value=x;
            p->next=NULL;
            q->next=p;
            q=p;
        }
    }
    node *ptr=h;
    while(ptr!=NULL)
    {
        printf("%d\n",ptr->value);
        ptr=ptr->next;
    }
    return 0;
}
```