

```
#include<stdio.h>
#include<stdlib.h>
#include<conio.h>
typedef struct linklist
{
    int data;
    struct node *next;
}Node;
int count =0 ;
void display(Node *);
void insertbeg(Node ** );
void insertAfter(Node **,int );
void Deletionnum(Node ** );
void insertEnd(Node **);
int main()
{
    Node *node,*head=NULL,*ptr;
    int co,count=0;
    printf("Enter Number of nodes to be created : ");
    scanf("%d",&co);
    while(co>0)
    {
        node = (Node*)malloc(sizeof(Node));
        printf("\nEnter the element : ");
        scanf("%d",&node->data);
        node->next=NULL;
        if(head==NULL)
        {
            head=node;
            co--;
        }
        else
        {
            ptr=head;
            while(ptr->next!=NULL)
                ptr=ptr->next;
            ptr->next=node;
            co--;
        }
    }

    display(head);
    //Insertion At the Beginning
    printf("\n\t\tElement inserted at beginning\n");
    insertbeg(&head);
    display(head);
    int d;
```

## Insertion Deletion In a Linklist

```

//Insertion After a particular number
printf("\n\t\tInsertion After a particular number\n");
printf("\nEnter after which number a new number to be added
: ");
scanf("%d",&d);
insertAfter(&head,d);
printf("\n\tList after insertion of number After a
particular number \n");
display(head);
//Deletion of element
printf("\n\t\tDeletion of Element Entered by the User\n");
Deletionnum(&head);
printf("\n\tList after Deletion\n");
display(head);
//Addition At the end
printf("\n\t\tAddition of the element at the end\n");
insertEnd(&head);
printf("\n\tList after Addition\n");
display(head);
printf("\n\t\t-----X-----X-----\n");
}
void insertbeg(Node **temp)
{
    Node * node =(Node *)malloc(sizeof(Node));
    printf("\n\nEnter number to be inserted at the beginning :
");
    scanf("%d",&node->data);
    node->next=*temp;
    *temp=node;
}
void insertAfter(Node **temp,int b)
{
    Node *node=(Node *)malloc(sizeof(Node));
    printf("\n\t\tEnter a number to be inserted : ");
    scanf("%d",&node->data);
    Node*ptr;
    ptr=*temp;
    int flag=0;
    while(ptr->next!=NULL && ptr->data!=b)
    {
        flag=1;
        ptr=ptr->next;
    }
    if(flag==0)
        printf("\n\t Number Not Found !");
    else
    {

```

```
        node->next=ptr->next;
        ptr->next=node;
    }
}
void Deletionnum(Node **temp)
{
    int n;
    Node *node=(Node *)malloc(sizeof(Node));
    printf("\nEnter Number to be Deleted from the list : ");
    scanf("%d",&n);
    Node *ptr;
    ptr=*temp;
    Node *pre;
    int flag=0;
    while(ptr->next!=NULL && ptr->data!=n)
    {flag=1;
        pre=ptr;
        ptr=ptr->next;
    }
    if(flag==0)
        printf("\n\tNumber Not Found !");
    else
        pre->next=ptr->next;
}
void insertEnd(Node **temp)
{
    Node *node =(Node*)malloc(sizeof(Node));
    printf("\n\tEnter A number to be Inserted At the end :");
    scanf("%d",&node->data);
    Node *ptr=*temp;
    while(ptr->next!=NULL)
    {
        ptr=ptr->next;
    }
    ptr->next=node;
    node->next=NULL;
}
void display(Node *ptr)
{
    count = 0;
    printf("\nLIST : ");
    while(ptr!=NULL)
    {
        printf("%d  ",ptr->data);
        count++;
        ptr=ptr->next;
    }
}
```

## Insertion Deletion In a Linklist

```
    }  
    printf("\nNumber of Nodes : %d\n",count);  
}
```