LINKED LIST

PROGRAM:-

#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

struct node

{

int data;

struct node \*next;

}\*head,\*temp;

void display(struct node \*);

void add(int n)

{

struct node \*temp1,\*temp2;

temp1=(struct node\*)malloc(sizeof(struct node));

temp2=(struct node\*)malloc(sizeof(struct node));

temp1->data=n;

if(head==NULL)

{

head=temp1;

temp=temp1;

temp2=temp1;

temp->next=NULL;

}

else

{

temp->next=temp1;

temp=temp1;

temp->next=NULL;

}

printf("\n");

}

void insertatbegi(int num)

{

struct node \*temp;

temp=(struct node\*)malloc(sizeof(struct node));

temp->data=num;

if(head==NULL)

{

head=temp;

head->next=NULL;

}

else

{

temp->next=head;

head=temp;

}

}

void insertatlast(int n)

{

//temp=head;

struct node \*temp1,\*temp2;

temp1=(struct node\*)malloc(sizeof(struct node));

//temp2=(struct node\*)malloc(sizeof(struct node));

temp1->data=n;

//head=temp1;

temp2=(struct node \*)head;

while(temp2->next!=NULL)

{

temp2=temp2->next;

}

temp2->next=temp1;

temp2=temp1;

temp2->next=NULL;

/\*if(head==NULL)

{

head=temp1;

temp=temp1;

temp2=temp1;

temp->next=NULL;

}

else

{

temp->next=temp1;

temp=temp1;

temp->next=NULL;

} \*/

printf("\n");

}

void display(struct node \*n)

{

n=head;

if(n==NULL)

{

return;

}

while(n!=NULL)

{

printf("%d ",n->data);

n=n->next;

}

}

void del(int value)

{

struct node \*mynode=head,\*previous=NULL;

int flag=0;

while(mynode!=NULL)

{

if(mynode->data==value)

if(previous==NULL)

head=mynode->next;

else

{

previous->next=mynode->next;

printf("%d is deleted from list\n",value);

flag=1;

}

previous=mynode;

mynode=mynode->next;

}

display(mynode);

if(flag==0)

printf("Key not found\n");

}

void main()

{

int i,l=1,num;

head=NULL;

clrscr();

while(l==1)

{

printf("\n Operations :-");

printf("\n (1) Insert");

printf("\n (2) Display");

printf("\n (3) Delete");

printf("\n (4) Insert at last");

printf("\n (5) Insert at begining");

printf("\n your choice ");

scanf("%d",&i);

switch(i)

{

case 1:

{

printf("\n Enter the number to be inserted : ");

scanf("%d",&num);

add(num);

}break;

case 2:

{

printf("\n Number in the list are : \n ");

display(temp);

}break;

case 3:

{

printf("\n Number to be deleted : \n ");

scanf("%d",&num);

del(num);

}break;

case 4:

{

printf("\n Enter the number to be inserted at last : ");

scanf("%d",&num);

insertatlast(num);

}break;

case 5:

{

printf("\n Enter the number to be inserted at begining : ");

scanf("%d",&num);

insertatbegi(num);

}break;

default:

printf("\n error.......");

}

printf("\n want to continue[yes(1) or no(0)]..... : ");

scanf("%d",&l);

}

getch();

}

OUTPUT:-













