# Program:

#include<iostream>

#include<conio.h>

using namespace std;

class linkedlist

{

struct node

{

int data;

node \*next;

}\*p;

public:

linkedlist()

{

p=NULL;

}

void addback()

{

int num;

node \*temp,\*r;

cout<<"Enter Data to add in the end\n";

cin>>num;

if(p==NULL)

{

temp=new node;

temp->data=num;

temp->next=NULL;

p=temp;

}

else

{

temp=p;

while(temp->next!=NULL)

temp=temp->next;

r=new node;

r->data=num;

r->next=NULL;

temp->next=r;

}

}

void addfront()

{

int num;

cout<<"Enter data to add in the front\n";

cin>>num;

node \*temp;

temp=new node;

temp->data=num;

temp->next=p;

p=temp;

}

void deletefront()

{

cout<<p->data<<" Is Deleted";

p=p->next;

}

void deleteback()

{

if(p==NULL)

cout<<"List Empty\n";

else

{

node \*temp,\*temp1;

temp=p;temp1=p;

while(temp->next!=NULL)

{

temp1=temp1->next;

temp=temp1->next;

}

cout<<temp->data<<" Is Deleted\n";

temp1->next =NULL;

delete temp;

}

}

void display()

{

node \*temp;

temp=p;

cout<<"\nData:\n";

cout<<temp->data<<" ";

do

{

temp=temp->next;

cout<<temp->data<<" ";

}while(temp->next!=NULL);

}

};

void main()

{

linkedlist l;

int choice,option;

do

{

cout<<"\n\nEnter Your Choice\n1.Add front\n2.Add Back\n3.Delete front\n4.Delete back\n5.Display\n";

cin>>option;

switch(option)

{

case 1: l.addfront();

break;

case 2: l.addback();

break;

case 3: l.deletefront();

break;

case 4: l.deleteback();

break;

case 5: l.display();

break;

default:

cout<<"Wronge Entry";

break;

}

cout<<"\nIf You want to continue press 1 \n";

cin>>choice;

}while(choice==1);

}

# Output:

 

