Practical 20:

/\*Program to illustrate Stack using Linked List implementation \*/

#include<iostream.h>

#include<process.h>

#include<conio.h>

#include<stdio.h>

#include<string.h>

struct Book

{

int Bnum;

char Btitle[20];

Book \*link;

};

class Stack

{

Book \*top;

public:

Stack()

{

top=NULL;

}

void push()

{

Book \*temp;

temp = new Book;

cout<<"Enter book number : ";

cin>>temp->Bnum;

cout<<"Enter book title : ";

gets(temp->Btitle);

if(top==NULL)

top=temp;

else

{

temp->link=top;

top=temp;

}

}

void pop()

{

Book \*temp;

if(top==NULL)

cout<<"No books.";

else

{

temp=top;

top=top->link;

temp->link=NULL;

delete temp;

}

}

void show()

{

Book \*temp;

temp=top;

cout<<"The book details : "<<endl;

while(temp!=NULL)

{

cout<<"\nBook Number : "<<temp->Bnum;

cout<<"\nBook title. "<<temp->Btitle;

temp=temp->link;

}

}

};

void main()

{

int choice;

Stack S;

char ans='y';

clrscr();

do{

cout<<"\nMain Menu\n";

cout<<"\n1.Add a Book";

cout<<"\n2.Delete a Book";

cout<<"\n3.Display Book information";

cout<<"\n4.Exit ";

cout<<"\nEnter choice : ";

cin>>choice;

switch(choice)

{

case 1:

do{

S.push();

cout<<"Do you want to continue?(y/n)";

cin>>ans;

}while(ans=='y');

break;

case 2:

ans=='y';

do{

S.pop();

cout<<"Do you want ot delete more records??(y/n)";

cin>>ans;

}while(ans=='y');

break;

case 3:

S.show();

break;

case 4:

exit(0);

break;

}

}while(choice!=4);

}

Output:



