Practical 19:

/\*Program for stack using array implementation\*/

#include<iostream.h>

#include<conio.h>

#include<process.h>

#define Max 100

int Stack[Max],top;

void Push(int Stack[],int val,int &top);

void Push(int Stack[],int val,int &top)

{

if(top==Max-1)

cout<<"Stack is full.";

else

{

top=top+1;

Stack[top]=val;

}

}

int Pop(int Stack[],int &top);

int Pop(int Stack[],int &top)

{

int val;

if(top<0)

{

cout<<"Stack is empty.";

val=-1;

}

else

{

val=Stack[top];

top=top-1;

}

return val;

}

void display(int Stack[],int top);

void display(int Stack[],int top)

{

int i=0;

if(top<0)

cout<<"Stack is empty.";

i=top;

cout<<"The values are : "<<endl;

do{

cout<<Stack[i]<<endl;

i=i-1;

}while(i>=0);

}

void main()

{

int choice,val;

char ans='y';

top=-1;

clrscr();

Label:

cout<<"\nMain Menu\n";

cout<<"\n1.Addition of Stack-Push Function";

cout<<"\n2.Deletion from Stack-Pop Function";

cout<<"\n3.Traverse the Stack";

cout<<"\n4.Exit";

cout<<"\nEnter your choice : " ;

cin>>choice;

switch(choice)

{

case 1:

do{

cout<<"Enter the value : ";

cin>>val;

Push(Stack,val,top);

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

cin>>ans;

}while(ans=='y');

break;

case 2:

ans='y';

do{

val=Pop(Stack,top);

if(val!=-1)

cout<<"The value deleted from stack is : ";

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

cin>>ans;

}while(ans=='y');

break;

case 3:

display(Stack,top);

break;

case 4:

exit(0);

}

goto Label;

}

Output:



