**Batch:B3**

**Name: Om Chandrakant Mahajan Date:20.02.24**

**Practical Name: Write a program to stack 1.push 2.pop 3.display 4.exit Roll No.88**

**-----------------------------------------------------------------------------------------------------------------------------------**--#include<iostream>

using namespace std;

class stack

{

int\*stk,top,max;

public:

stack()

{

top=-1;

cout<<"\nEnter The Length Of stack:";

cin>>max;

stk=new int[max];

}

void push();

void pop();

void display ();

~stack()

{

delete[]stk;

}

};

void stack::push()

{

int item;

if(top==max-1)

{

cout<<"\nstack is overflow:\n";

return;

}

else

cout<<"\Enter The item to be Inserted:";

cin>>item;

top++;

stk[top]=item;

}

void stack::pop()

{

int t;

if(top==-1)

{

cout<<"\nstack is underflow\n:";

return;

}

else

t=stk[top];

cout<<"\nElement "<<t<<" is Deleted:";

top--;

}

void stack::display()

{

if(top==-1)

{

cout<<"\nstack is Empty:";

return;

}

else

for(int i=top;i>=0;i--)

{

cout<<"\n"<<stk[i];

}

}

int main()

{

stack obj;

int ch;

do

{

cout<<"\n1.push\n2.pop\n3.display\n4.Exit";

cout<<"\nEnter your choice:";

cin>>ch;

switch(ch)

{

case 1:obj.push();break;

case 2:obj.pop();break;

case 3:obj.display();break;

case 4:break;

default:cout<<"\ninvalid choice:";

}

}while(ch!=4);

return 0;

}

**Output:**

**Enter The Length Of stack:2**

**1.push**

**2.pop**

**3.display**

**4.Exit**

**Enter your choice:1**

**nter The item to be Inserted:34**

**1.push**

**2.pop**

**3.display**

**4.Exit**

**Enter your choice:1**

**nter The item to be Inserted:54**

**1.push**

**2.pop**

**3.display**

**4.Exit**

**Enter your choice:2**

**Element 54 is Deleted:**

**1.push**

**2.pop**

**3.display**

**4.Exit**

**Enter your choice:3**

**34**

**1.push**

**2.pop**

**3.display**

**4.Exit**

**Enter your choice:4**

**--------------------------------**

**Process exited after 21.87 seconds with return value 0**

**Press any key to continue . . .**