**Name: AREEB AHMED**

**Reg.No.: FA19-BSE-022**

Question 4:

Code:

#include<iostream>

using namespace std;

class NumberEditor

{

private:

int \*stack;

int top;

int NumArysize;

int item;

public:

NumberEditor(int NumArysize = 5) //Constructor

{

top = -1;

this->NumArysize = NumArysize;

stack = new int[NumArysize];

item = 0;

}

void push(int num) //Add number in number array

{

if (top >= (NumArysize -1))

{

cout << " Stack overflows " << endl;

}

else

{

top++;

stack[top] =num;

}

}

void pop() //delete number form number array

{

if (top <= -1)

{

cout << " Stack Underflows " << endl;

}

else

{

item = stack[top];

top--;

cout << "The pop value is " << item << endl;

}

}

void peek() //undelete number in number array

{

if (top == -1)

{

cout << " Stack is empty " << endl;

}

else

{

cout << " The top element of the stack is " << stack[top] << endl;

}

}

void display()

{

int i;

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

{

cout << " The elements of the stack are " << stack[i] << endl;

}

}

};

int main()

{

int choice;

NumberEditor s;

cout << "Enter Data for stack:" << endl;

for (int a = 0; a < 5; a++)

{

cin >> a;

s.push(a);

}

do

{

cout << " ENTER YOU CHOICES WHAT YOU WANT TO DO WITH YOUR STACK " << endl;

cout << "Press 0 for Exit " << endl;

cout << "Press 2 for pop " << endl;

cout << "Press 3 for peek " << endl;

cout << "Press 4 for display the stack " << endl;

cin >> choice;

if (choice == 2)

{

s.pop();

}

else if (choice == 3)

{

s.peek();

}

else if (choice == 4)

{

s.display();

}

} while (!(choice == 0));

return 0;

}