**Experiment 7**

C++ PROGRAM TO IMPLEMENT COMPLEX NUMBER CLASS

**ALGORITHM**

Step 1: Start

Step 2: Declare and define class “COMPLEX” with public functions “get” which reads the real and imaginary parts, “display” which prints the complex number and “add” which calculates additions of the complex numbers.

Step 3: Read the 1st and 2nd Complex Number as real and imaginary part.

Step 4: Call “get” function.

Step 5: Call “display” function to display the complex numbers.

Step 6: Call “add” function to add the Complex Numbers.

Step 7: Print the Resultant Complex Number.

Step 8: Stop

**Code:-**

//addition two complex number

#include<iostream>

using namespace std;

class COMPLEX //create class of name cmplex

{

int re,im;

public:

void get() //function to read the input

{

cin>>re>>im;

}

void display() //function to display output

{

cout<<re<<"+"<<im<<"i";

}

void add(COMPLEX c1,COMPLEX c2) //function to add two numbers

{

re=c1.re+c2.re;

im=c1.im+c2.im;

}

};//complex

int main()

{

COMPLEX c1,c2,c3; //instantiation of objects

cout<<"\nenter 1st complex no. as real and imaginary part:";

c1.get();

cout<<"\nenter 2nd complex no. as real and imaginary part:";

c2.get();

cout<<"\n\n the 1st complex no is:";

c1.display();

cout<<"\n\n the 2nd complex no is:";

c2.display();

c3.add(c1,c2);

cout<<"\n\n the resultant complex no is:";

c3.display();

return 0;

}

**Output:-**

