Assignment 1(complex number)

Implement a class Complex which represents the Complex Number data type. Implement the following
1. Constructor (including a default constructor which creates the complex number 0+0i).
2. Overload operator+ to add two complex numbers.
3. Overload operator* to multiply two complex numbers.
4. Overload operators << and >> to print and read Complex Numbers.

```cpp
#include <iostream>

using namespace std;          //declaring the scope of program

class complex              //class name "complex"
{
public:
float real,img;        //declared variable of type float



    complex()          //default constructor
{
}
    complex operator+ (complex);
    complex operator* (complex);
    friend ostream &operator<<(ostream &,complex&);
    friend istream &operator<<(istream &,complex&);
};
```

```cpp
complex complex:: operator + (complex obj)
{
complex temp;
temp.real=real+obj.real;
temp.img=img+obj.img;
return (temp);
}
istream &operator >> (istream &is,complex &obj)
{
is>>obj.real;
is>>obj.img;
return is;
}
ostream &operator<<(ostream &outt,complex &obj)
{
outt<<""<<obj.real;
outt<<"+"<<obj.img<<"i";
return outt;
}
complex complex :: operator * (complex obj)
{
  complex temp;
    temp.real=real*obj.real-img*obj.img;
    temp.img=real*obj.img+img*obj.real;
    return (temp);
}
```

```cpp
int main()
{
 complex a,b,c,d;
  cout<<"\nEnter first complex number\n";
  cout<<"\nEnter real and imaginary:\t";
 cin>>a;
 cout<<"Enter second complex number \n";
 cout<<"\nEnter real and imaginary:\t";
 cin>>b;
 cout<<"\n\tArithmetic operations";
 c=a+b;
 cout<<"\n\tAddition =";
 cout<<c;
 d=a*b;
 cout<<"\n\tMultiplication=";
 cout<<d;
 cout<<endl;
 return 0;

}
```