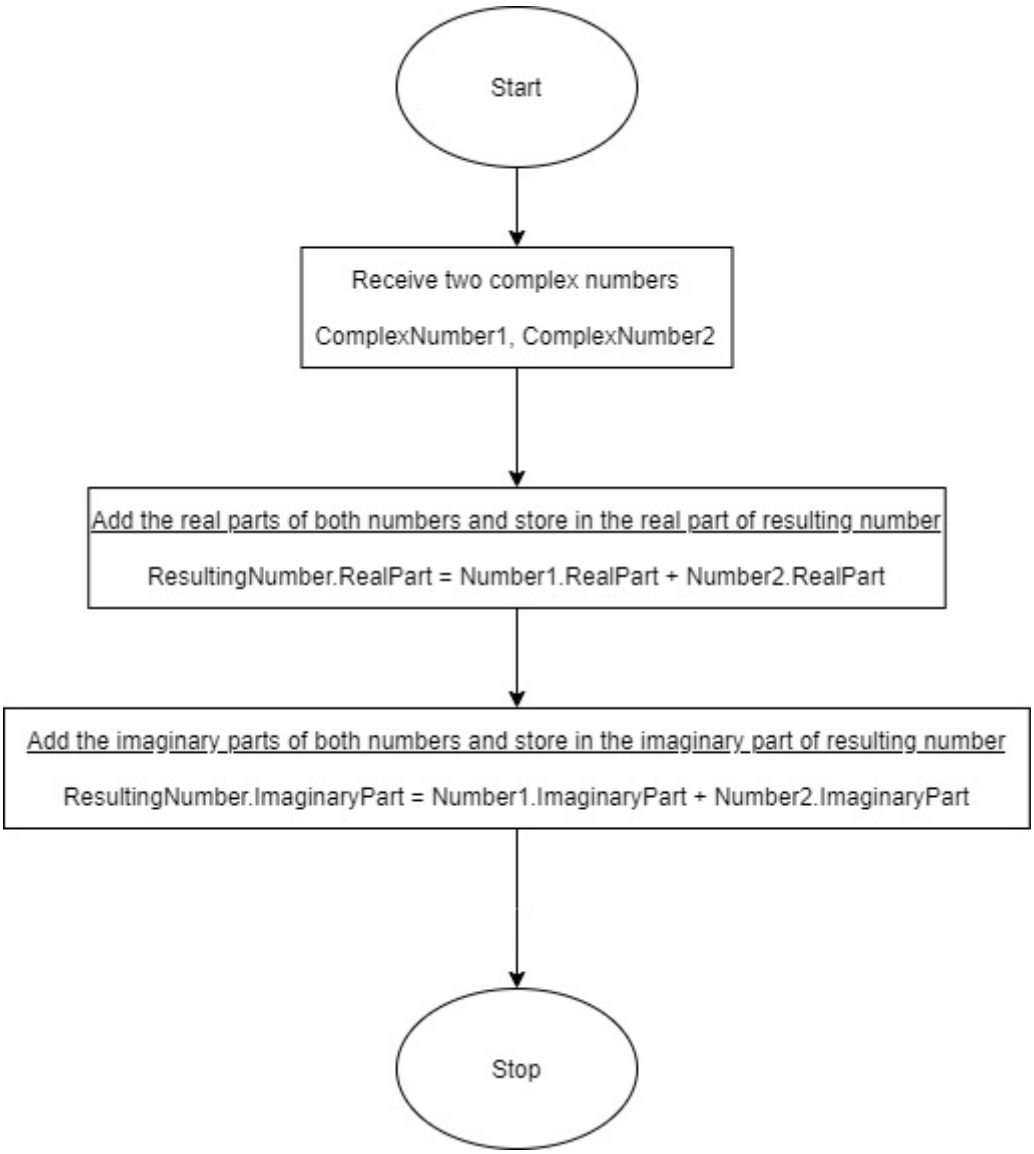
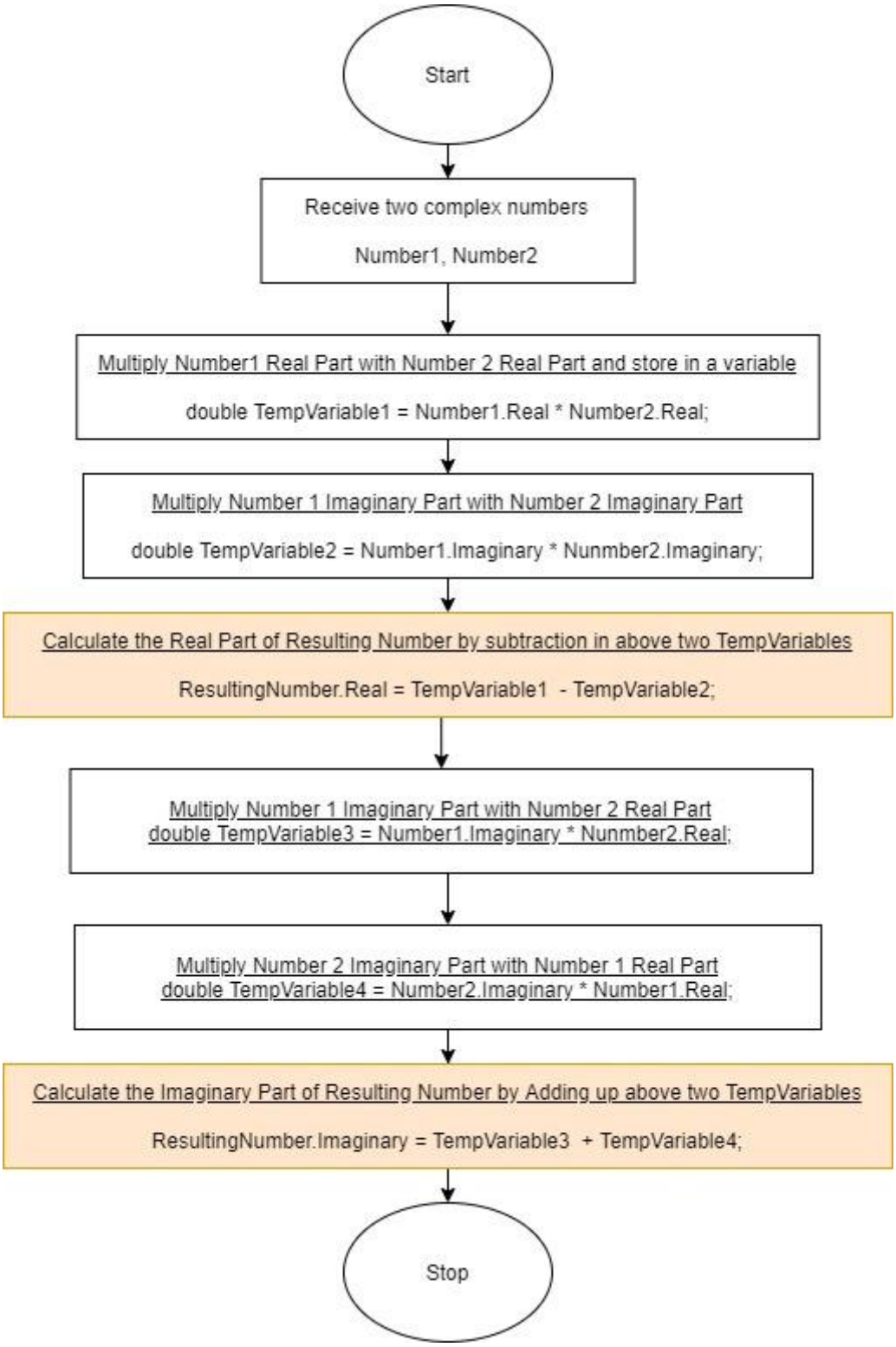
Contents

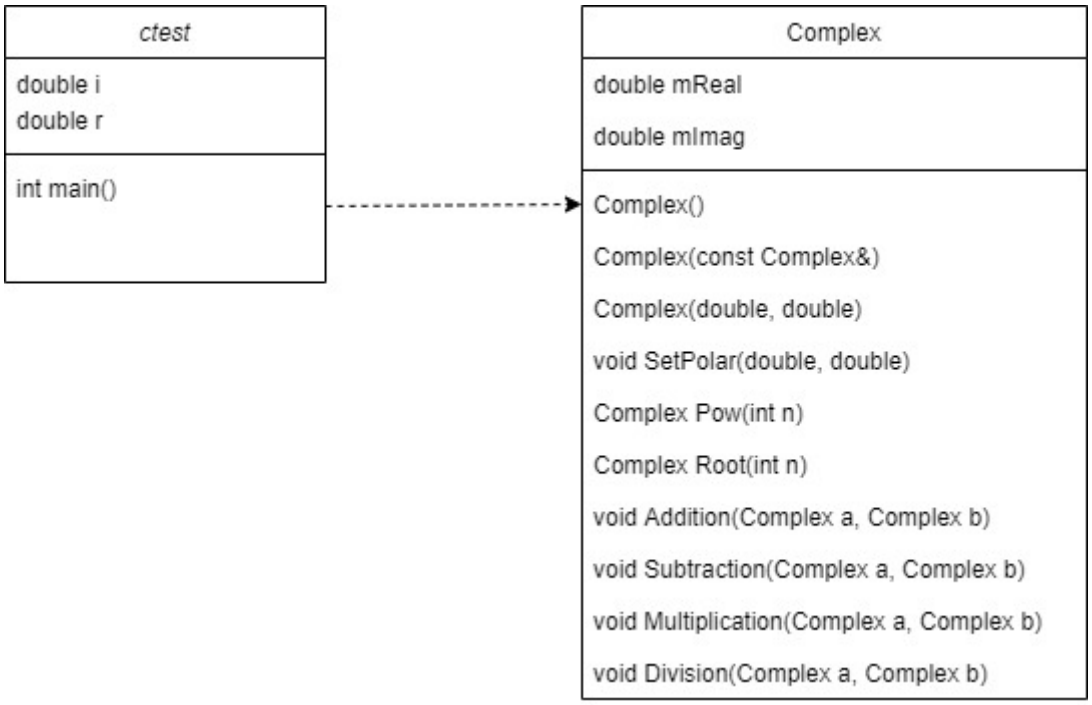
1. Flow Chart Addition Function



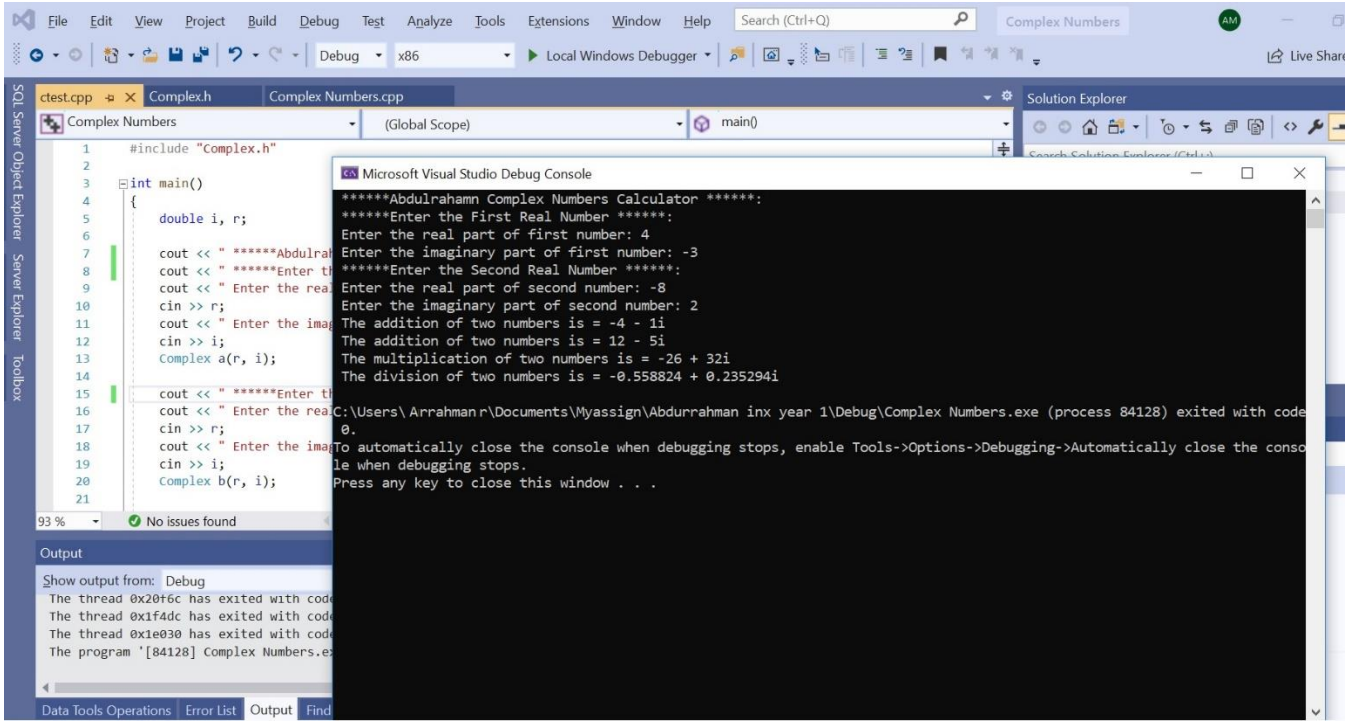
2. Flow Chart Multiplication Function



3.Class Diagram



4. Code Output



5. Explanation of Code

All the private attributes and public methods are defined in the header file. The header file is then referenced in the CPP file called “Complex Numbers.CPP”. This file contains all the definitions of the functions declared in the header file.

I added 4 more functions (addition, subtraction, multiplication and division) in header file “Complex.h” and definition file “Complex Numbers.CPP. For every function we declare in header file we need to define the function otherwise the system gives error.

In the ctest.cpp file, I am taking two inputs from the user. The user enters the real and imaginary part of each number in variables “i” and “r”. I then use the constructor of Complex class to declare two objects for Complex class and for each object I use user’s entered input.

```
Complex a(r, i);
```

```
Complex b(r, i);
```

To perform the actual operation I declare another object for each operation to store the results. E.g. for Addition I did the following steps:

`Complex c;`	Declare another object c which will store the result of addition of two numbers a and b
`c.Addition(a, b);`	Call the method Addition and pass on the user entered numbers a and b
`cout << " The addition of two numbers is = " << c << endl;`	Output the resulting number c

Ctest.cpp class can access all the content of header file because the header file reference is added into ctest.cpp.