**1. Handling Complex Numbers in C:**

* In C programming, complex number handling often involves defining structures or arrays to represent the real and imaginary parts separately.
* Functions must be implemented to perform arithmetic operations on these structures or arrays, leading to verbose and less readable code.
* Lack of built-in support for complex numbers necessitates manual implementation of operations like addition, subtraction, multiplication, and division.

**2. Handling Complex Numbers in C++:**

* In C++, complex numbers are handled more elegantly using classes and operator overloading.
* The provided C++ code demonstrates the creation of a **Complex** class, which encapsulates real and imaginary parts, along with overloaded operators for arithmetic operations.
* Operator overloading allows for natural syntax, enhancing code readability and maintainability.
* Built-in support for complex numbers in C++ standard library (**<complex>**) provides additional functionalities and simplifies complex number handling.

**3. Advantages of Programming in C++:**

* **Abstraction:** C++ supports classes and objects, enabling better abstraction and encapsulation of complex data structures and operations, as demonstrated by the **Complex** class.
* **Operator Overloading:** C++ allows overloading of operators, leading to natural syntax for mathematical operations and improved code expressiveness.
* **Standard Library:** C++ offers a rich standard library, including features like streams (**iostream**) and mathematical functions (**<cmath>**), simplifying complex number handling and other programming tasks.

**4. Disadvantages of Programming in C++:**

* **Complexity:** The advanced features of C++, such as classes, templates, and operator overloading, can increase code complexity and potentially lead to longer development times.
* **Memory Management:** C++ requires manual memory management when dealing with raw pointers and dynamic memory allocation, increasing the risk of memory leaks and other memory-related errors if not handled properly.
* **Compilation Time:** Due to sophisticated features and template usage, C++ code may have longer compilation times compared to C, particularly for larger projects.