1. Created a Complex class to represent complex numbers, encapsulating real and imaginary parts.
2. Included appropriate member variables and methods for handling complex arithmetic.
3. Implemented overloading of operators such as +, -, \*, / for arithmetic operations on complex numbers.
4. Overloaded comparison operators == and != for equality and inequality checks.
5. Provided compound assignment operators (+=, -=, \*=, /=) for modifying complex numbers in place.
6. Defined friend functions to handle operations between a Complex object and a double value.
7. Ensured seamless compatibility for arithmetic operations involving both complex and real numbers.