CSE 112 : Object Oriented Programming Lab
Lab 07

Intake 52
Section - 04

April 2,2024

Tasks

Task 1

- Create a C++ class called `Complex` to represent complex numbers.
- Overload the binary operators `+`, `-`, and `*` to perform addition, subtraction, and multiplication of complex numbers, respectively.
- Develop a program that demonstrates these overloaded operators by performing operations on complex numbers.
- **Additional Task:** You need to define the operators '++' and '- -' to increment the real part and decrement the complex part, respectively. This can be achieved by using the expressions '++c1' and 'c2- -' in the main() function, where 'c1' and 'c2' are objects of the complex class.

Task 2

- A class called "X" has two operator overloading functions. Now implement a code for the statement: ob1= (ob2+2)*ob3 to compile correctly.

Task 3

- Create two base classes: `Vehicle` and `ElectricDevice`.
  - The `Vehicle` class should have private attributes like `brand` and `model`.
  - The `ElectricDevice` class should have attributes like `voltage` and `powerConsumption`.
  - Implement parameterized constructors for both classes.
- Derive a class called `ElectricCar` from both `Vehicle` and `ElectricDevice`.
- Implement a parameterized constructor and a function named `displayDetails()` in the `ElectricCar` class.
  - The `displayDetails()` function should display information about the electric car, including details from both base classes (`Vehicle` and `ElectricDevice`).