CSE 122 : Object Oriented Programming Lab
Lab - 2

Intake 51
Section - 3

January 18, 2024

Task 1

- Create a class named Square having data member side as double type.

- Implement a member function display () is used to show the values of side and a parameterized constructor is used to initialize the value of side for the first object.

- Create two objects ob1(30) and ob2. ob2 will copy the contents of ob1 using user defined copy constructor and show the value of side for both objects.

Task 2

- Design a class named Book to encapsulate information about a book, such as title, author, and publication year.

- Implement a non-parameterized constructor to set default values for the attributes. Additionally, include a destructor that displays a message when an object of the class is destroyed.

- Provide an example of creating objects of the Book class, accessing their attributes, and observing the destructor message upon object destruction.

Task 3

- Define a class called **Complex** to represent complex numbers. It has private member variables **real** and **img** to store the real and imaginary parts of the number, respectively.

- Implement public member functions *set_data* and *get_data* to set and display the values of the complex number.

- Declare a member function named sum that takes two **Complex** objects as parameters and returns a new **Complex** object that represents the sum of the two complex numbers.

- Inside the sum function, create a new **Complex** object temp and assign the sum of the real and imaginary parts of the two input complex numbers to the corresponding members of temp.

- In the main function, create three **Complex** objects c1, c2, and c3. Set the data for c1 and c2 using the *set_data* function.

- Call the sum function, passing c1 and c2 as arguments, and assign the returned object to c3.

- Display the sum of the complex numbers using the *get_data* function.