CSE 122 : Object Oriented Programming Lab
Lab - 3

Intake 51
Section - 4

January 23, 2024

Task 1

- Define a class called `Student` with private data members for **name** and **ID**.

- Implement parameterized constructors to initialize `name` and `ID` of an object of `Student` class.

- Implement an user defined **copy constructor** to copy the values of one object to another.

- Create a `display` function to display student's information.

- Demonstrate the use of these functions in a program.

Task 2

- Create a class named `Rectangle` with private data members for **length** and **width**.

- Implement member functions to set the length and width, calculate the area, and display the dimensions.

- Additionally, create a member function named `combine` that takes two Rectangle objects as a parameter and returns a new Rectangle object whose length and width represent the combined length and width of the two rectangles.

- Demonstrate the use of these functions in a program.

Task 3

- Define a class called `Complex` to represent complex numbers.

- Implement parameterized constructors to initialize the **real** and **imaginary** parts.

- Create a `display` function to display the complex number.

- Create a friend function named `addComplex` that takes two Complex objects as parameters and returns a new Complex object representing the sum of the two complex numbers.

- Demonstrate the use of the friend function in a program.