

CSE 122 : Object Oriented Programming Lab

Lab - 5

Intake 52
Section - 3

February 1, 2024

Task 1

- Define a class named **Square** which has private data member length as integer type.
- A member function **set_length()** is used to set the length of an object.
- To calculate the area of a non member function **area()** which takes an Square object as parameter and returns the area of the object.
- Now create an object of Square class, then set the length of the object and show the area as output.

Task 2

- Define a class named **Box1** which has two private data members, one is area as double type another is color as string type.
- Define another class named **Box2** which has same private data members as **Box1**.
- Create a parameterized constructor is used to set the data members of the two classes.
- Now define a nonmember function named **Compare_Box ()** which takes two objects as parameters [one object of Box1 and another object of Box2] and display "Box1" if the area of object of **Box1** is bigger and "Box2" otherwise.

Task 3

- Define the **Distance** class with private data members for kilometers, meters, and centimeters.
- Implement a parameterized constructor to initialize the **Distance** object with user-input values for kilometers, meters, and centimeters.
- Define a member function named **sub()** within the **Distance** class to find the difference between two **Distance** objects. Assume that the first object will always be larger than the second one.
- Implement a function named **show()** inside the **Distance** class to display the result of the difference.
- In the main function, create two **Distance** objects named D1 and D2 and initialize them with user-input kilometers, meters, and centimeters.
- Use the **sub()** function to find the difference between D1 and D2, and then use the "**show()**" function to display the result.