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OOCCL Lab Assignment 3A

Problem Statement:

Define a class complex consisting following:

Data members:

a) real

b) Imaginary part

Member Functions

a) One default constructor

b) function setcomplex() to set the value of real and Imaginary part.

c) function printcomplex() to display and

Four overloaded operator member functions:

1) Operator + to add two complex numbers

2) operator * to multiply two complex numbers

3) Operator - to subtract two complex numbers using

friend functions

4) Operator / to divide two complex numbers using

friend functions

Objectives:

1. To learn to create a class in C++

2. To learn constructor, function and operator overloading

in C++. Also to learn friend function in C++.

3. To learn Friend Function in C++.

FAQ's

1) What is inline function?

→ An inline function is a function that is declared in-line at the point of its call rather than being like a regular function. i.e. when compiler encounters an inline function call, it replaces the function with the entire body of the function.

2) Which operator links class to a member?

→ The scope resolution operator (`::`) links class member function in C++. It is used to define member function outside the class definition to access static members, namespace members etc. It can also be used to access overloaded operators that have been defined as member functions.

Ex] `void myclass :: myfunction () {`

In the example "`::`" links 'myclass' to 'myfunction'.

3) What is default access specifier in C++?

→ In C++, the default access specifier for a class is 'private'. This means all data members and data functions of the class are private access within the class only.

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OOCJ Lab Assignment

Problem Statement: Write an interface for a Motorbike. It consists of the attributes: `acceleration()`, `cycleInterference()`. These interfaces are used to calculate total distance.

Objective:

- 1) To study abstract class
- 2) To study interfaces

Theory:

1. Java Abstraction:
A process of hiding only functionality. Shows only essential internal details.
Ex: sending SMS. You focus on the message delivery. It focuses on who does it.

There are 2 ways

- 1) Abstract class