

LAB 3

CLASS AND OBJECT CONCEPT, CONSTRUCTORS & DESTRUCTORS

In this lab, students shall write and run different programs related to ***OOP concept, constructors and destructors*** in C++ programming language. Following programs with different task number shall be covered in this lab:

Task #1:

Write a program in CPP to input the name, roll, marks and address of a student from the user and display the entered details using the concept of class and object.

Task #2:

Write above program(task#1) in CPP for 'n' students.

Task #3:

Write a program in CPP to illustrate the concept of constructor (default, parameterized and copy constructor) and destructor, taking class complex with data members real and imaginary. Show the values of each object created.

Task #4:

Write a program in CPP to illustrate the order of constructor and destructor invocation in different scopes, taking class complex with data members real and imaginary. Show the values of each object created and destroyed. (Use parameterized constructor)

Task #5:

Write a program in CPP to find the “sum” of two objects of type 'time' with members – hour, minute and second using the OOP concept. In the main function, “sum” function should be invoked as object1.sum(object2,object3) as well as object1.sum(object2). (NOTE: DO NOT RETURN OBJECT FOR THIS TASK)

Task #6:

Write above program(task#4) in CPP which returns 'time' object after addition.