



# OBJECT ORIENTED PROGRAMMING SOFTWARE TRAINER

MODEL - OOPR100

This Software trainer provides Simulation of Object Oriented Programming in C++ and Java.



## FEATURES

1. Study of object oriented concepts and build object oriented programming application using C++ and Java.
2. Study of the basic concepts and techniques which form the object oriented programming paradigm

## SPECIFICATIONS

1. Object Oriented Programming Simulation Software
2. Matlab Simulation .m files : more than 50 Files
3. Books for Object Oriented Programming : 10 Nos in pdf Format
4. Mp4 Video Class for Object Oriented Programming : 40 Classes in Mp4 on DVD / Pen Drive

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**Dealer:-**

## EXPERIMENTS

1. Write a program in C++ to sort the numbers in an array using separate functions for read, display, sort and swap. The objective of this assignment is to learn the concepts of input, output, functions, call by reference in C++.
2. Write a program in C++ to perform following operations on complex numbers Add, Subtract, Multiply, Divide, Complex conjugate. Design the class for complex number representation and the operations to be performed. The objective of this assignment is to learn the concepts classes and objects.
3. Write a program in C++ to implement Stack. Design the class for stack and the operations to be performed on stack. Use Constructors and destructors. The objective of this assignment is to learn the concepts classes and objects, constructors and destructors.
4. Write a program in C++ to perform following operations on complex numbers Add, Subtract, Multiply, Divide. Use operator overloading for these operations. The objective of this assignment is to learn the concepts operator overloading.
5. Write a program in C++ to implement database of persons having different profession e.g. engineer, doctor, student, laborer etc. using the concept of multiple inheritance. The objective of this assignment is to learn the concepts of inheritance.
6. Write a program in Java to implement a Calculator with simple arithmetic operations such as add, subtract, multiply, divide, factorial etc. using switch case and other simple java statements. The objective of this assignment is to learn Constants, Variables, and Data Types, Operators and Expressions, Decision making statements in Java.
7. Write a program in Java with class Rectangle with the data fields width, length, area and colour. The length, width and area are of double type and colour is of string type. The methods are get\_length(), get\_width(), get\_colour() and find\_area(). Create two objects of Rectangle and compare their area and colour. If the area and colour both are the same for the objects then display " Matching Rectangles", otherwise display " Non-matching Rectangle".
8. Write Programs in Java to sort i) List of integers ii) List of names. The objective of this assignment is to learn Arrays and Strings in Java
9. Write a Program in Java to add two matrices. The objective of this assignment is to learn Arrays in Java
10. Write a program in Java to create a player class. Inherit the classes Cricket\_player, Football\_player and Hockey\_player from player class. The objective of this assignment is to learn the concepts of inheritance in Java