

## Why Learn C++ Object Oriented Programming OOP ?

This course will introduce you to a powerful problem-solving process which you can use to solve any programming problem.

## Audience Profile :

- This course has been designed meticulously to help students master the Object Oriented Programming skills in C++.
- Learning C++ language is an excellent place to start or bolster your knowledge of programming and safeguard your career.
- Whether you started your programming journey on a different path such as Java or Python, learning C++ will help you better understand any programming environment and do more.

## Prerequisites:

- C++ Basics or C Programming Basics
- Basic understanding of computer language



## Course Overview:

- Throughout the course, you'll be fully immersed in OOP for C++, with illustrations, exercises, quizzes, and hands-on challenges every step of the way.
- This is because programming is fundamentally about figuring out how to solve a class of problems and writing the algorithm, a clear set of steps to solve any problem in its class.
- This course will introduce you to a powerful problem-solving process which you can use to solve any programming problem.
- OOP is faster and easier to execute. OOP provides a clear structure for the programs. OOP helps to keep the C++ code DRY "Don't Repeat Yourself", and makes the code easier to maintain, modify and debug. OOP makes it possible to create full reusable applications with less code and shorter development time.
- C++ offers the essentials necessary to implement object-oriented programming. It has classes and objects, access specifiers, and the OOP concepts of inheritance, encapsulation, abstraction, and polymorphism.

## C++ Object Oriented Programming OOP Outline:

- Lecture 1: C++ Overview
  - History of C++
  - Interpreter vs. Compiler
  - C++ Identifiers & Reserved Words
  - Lines and Indentation
  - Multi-Line Statements
  - Quotation & Comments
- Lecture 2: Variable Types
  - C++ Variables
  - C++ Integer
  - C++ Float
  - C++ Strings
  - C++ Arrays
  - Data Type Conversion
- Lecture 3: Basic Operations
  - Arithmetic Operators
  - Comparison Operators
  - Bitwise Operators
- Lecture 4: Conditions
  - Decision making Definition
  - IF Statement
  - IF and ELSE Statements
  - IF, ELSE IF and ELSE Statements
  - Nested IF Statements
  - Single Statement Suites
  - Switch Statement
- Lecture 5: Loops
  - Loop Definition
  - While Loop Statements
  - Do While Loop Statements
  - For Loop Statements
  - Nested Loops
  - Loop Control Statements
- Lecture 6: Arrays
- Lecture 7: Pointers & References
- Lecture 8: Functions
- Lecture 9: Strings
- Lecture 10: Structures
- Lecture 11: Enumerations
- Lecture 12: Unions
- Lecture 13: Object Oriented Overview
- Lecture 14: Data Encapsulation
- Lecture 15: Operator Overloading & Function Overloading
- Lecture 16: Inheritance & Function Overriding
- Lecture 17: Modules & Standard Template Libraries
- Lecture 18: Polymorphism & Abstract Class
- Lecture 19: File Handling
- Lecture 20: Exception Handling

### Training Solutions:

✓ Offline Classroom Instructor-Led Training in our labs or onsite Locations.

✓ Virtual Instructor-Led Training Via Virtual Video Conferencing Tools.

### Why Learners Prefer CLS as their Training Services provider ?

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