



MASTERY PROGRAM

A structured, hands-on C++ program that builds on core programming fundamentals through object-oriented design, the Standard Template Library, and performance-focused features used in real-world software and systems.

Program Curriculum

01 C++ Foundations

- Syntax, Variables & Data Types
- Operators, Strings & Math
- Booleans, If...Else & Switch
- Loops & Arrays

02 Functions & Lambdas

- Functions & Parameters
- Function Overloading & Scope
- Recursion
- Lambda Expressions

03 Object-Oriented Programming

- Classes, Objects & Class Methods
- Constructors & Access Specifiers
- Encapsulation
- Friend Functions

04 Inheritance, Polymorphism & Templates

- Inheritance
- Polymorphism
- Templates
- Namespaces

05 Pointers, References & Memory

- References & Pointers
- Memory Management
- Structures & Enums

06 Error Handling & Debugging

- Errors & Debugging
- Exceptions
- Input Validation

07 Data Structures & STL

- Vectors, Lists & Deque
- Stacks & Queues
- Sets & Maps
- Iterators & Algorithms

08 Real Projects & Certification

- Files & Hands-on Projects
- Practice Problems & Code Challenges
- C++ Certification Exam

Who Should Enroll

- ✓ Students & freshers building a strong CS foundation
- ✓ C developers moving into object-oriented design
- ✓ Aspiring game & systems developers
- ✓ Candidates preparing for C++ technical interviews

Program Highlights

- ✓ Hands-on Training
- ✓ Expert Mentors
- ✓ Real-World Projects
- ✓ Certification Included
- ✓ Flexible EMI Available