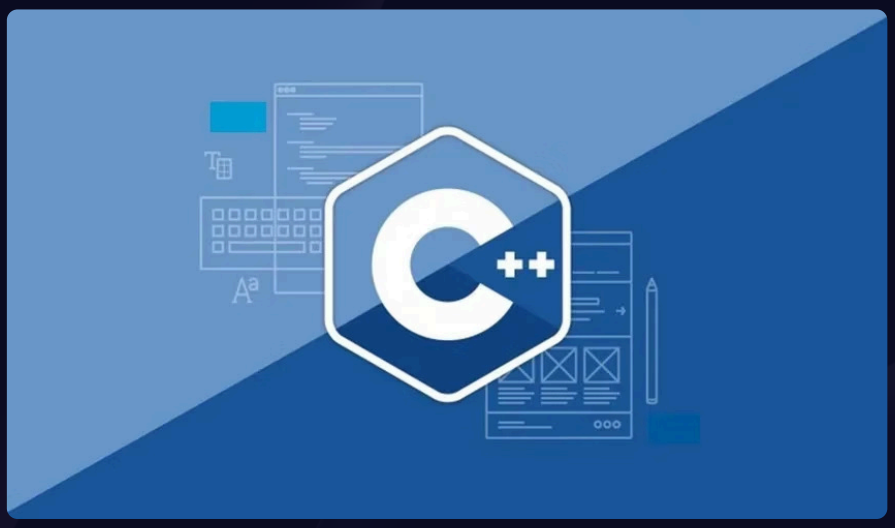
C++ Programming Course



About Ecorporate Trainings

Ecorporate Trainings is designed to empower professionals with flexible, engaging, and personalised training solutions that drive career growth and organisational success.

We offer a learner-centric experience that allows employees to access a rich repository of courses and resources anytime, anywhere, on any device. Our platform features intuitive navigation, clear progress tracking, and interactive content tailored to diverse learning styles and proficiency levels.

About the Course

C++ Programming Course by Ecorporate Trainings is designed to meet the industry benchmarks and curated by top industry experts. This C++ programming course will give you extensive knowledge of Object-Oriented Programming in C++, Coding Styles and Design Patterns, Generic Programming and Standard Template Library. This C++ online course helps you master other concepts like C++ Compiler Toolchain, STL Algorithms and Iterators, Hex Overview, Debugging Options and Debugging, with industry use cases. Enroll in this C++ online training to become a certified professional.

C++ Programming Course Curriculum

Object-Oriented Programming in C++

Topics:

- What is Object-Oriented Programming?
- Features of OOP
- Why is C++ Partially Object-Oriented?
- What are Classes?
- What are Objects?
- How to Access Data Members/Member Functions?
- Class Members
- C++ Access Modifiers
- Types of Access Specifier
- Public Access Modifier
- Private Access Modifier
- Protected Access Modifier
- Static Variables and Functions
- Static Functions
- Static Members Function
- What is a Destructor?
- What is a Default Constructor?
- What is a Parameterized Constructor?
- What are Generic Classes?
- What are Generic Functions?
- Creating Generic Functions
- Types of Generic Functions
- Overloading Generic Functions
- What are Parameters?
- What are Arguments?
- Default Parameter
- Multiple Parameter

- Types of Argument Passing
- Pass By Value
- Pass By Reference

Basics of C++

Topics:

- Differences between C and C++
- History of C++
- Evolution of C++
- C++ Versions
- C++ 11 Features
- What is C++?
- Characteristics of C++

Coding Styles and Design Patterns

Topics:

- What is a Clean Code?
- How to write a Clean Code?
- What is Design Pattern?
- Types of Design Pattern
- What is Design for Testing?

Generic Programming and Standard Template Library

Topics:

- What is Generic Programming?
- Advantages of Generic Programming

- What are Templates?
- Implementing Generic Programming Linker Options
- What is a Standard Template Library (STL)?
- Components of STL
- Containers
- Types of Containers
- Applications of Containers
- What are Vectors?
- Member Functions of Vectors
- What is a Minimum Spanning Tree?
- Kruskal's Algorithm
- Prim's Algorithm
- Applications of MS

Optimise C++ code

Topics:

- Optimisation for Speed/Memory

STL Algorithms and Iterators

Topics:

- What are STL Algorithms?
- Implementation of STL Algorithms
- Types of STL Algorithms
- What are STL Iterators?
- Types of Iterators
- Implementation of Iterators

- What are Functions?
- Types of Functions
- Function Declaration
- Function Definition
- Function Calling
- Advantages of Functions
- Functors in C++
- What is Lambda Expression?
- Example of Lambda Expression
- Lambda Closures

C++ Compiler Toolchain

Topics:

- What is a Linker?
- What is a Loader?
- What is a Library?
- What are Static Libraries?
- What are Dynamic Libraries?

Hex Overview

Topics:

- Hex-Overview
- Implementation of Tic Tac Toe Game
- What is Inheritance?
- What are the different types of Inheritance?
- What is a Virtual Function?
- What is Binding?
- What are Abstract Classes

Debugging Options and Debugging

Topics:

- Debugging options in C++
- What is Static and Dynamic Code Analysis?
- Debugger Options
- C++ Code Profiling

C++ Programming Course Projects

What are the system requirements for our C++ Certification Training

- RAM: 2GB
- Processor: Intel Core2 Duo or higher
- Operating System: 32 or 64 bit OS with C++ compiler and a text editor

How will I execute the practicals?

- You will require a C++ compiler and a text editor to execute the practicals.

Which practicals will be a part of this C++ Certification Course?

Following practicals will be a part of this C++ Certification Course:

- Creating Classes & Objects
- Populating variables & member functions
- Working with Static Variables and functions
- Writing Constructors and destructors
- Default & parameterized constructors
- Generic classes and functions

- Writing Generic Functions using templates
- Creating & working with Vectors
- Memory Allocation & optimization
- Working with Linkers and Loaders
- Working with STL Algorithms
- Implementing Iterators
- Working with Lambda Expressions
- Working with Hex Programming
- Designing and implementing tic-tac-toe game
- Debugging C++ programs

Industry-recognized Certificate

Upon successful completion of the course, you will receive an industry-recognised certificate of completion from Ecorporate Trainings.

Ask your queries to our experts!

Ecorporate Trainings course counsellors and learner support advisors are available 24×7 to help you with your learning needs.

Call us on 9663241204!

or

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