

About Codefrux

While the current trends around the world are based on the internet, mobile and its applications, we try to make the most out of it. As for us, we are a well established IT professionals based in Bangalore, constantly coping up with the extensive advancement and adapting to new Technology.

C and C++ are two popular programming languages used widely for coding in many operating systems and software. This course teaches you the powerful, fast and popular C++ programming language from scratch, assuming only basic computer knowledge.

What you will Learn In This Course

- Master practical details of C++
- Gain skills required for Job
- Write code for any project

Who should take the course

- Beginners – if you've never coded before, you can learn C++ step by step
- Programmers switching to C++ from some other language such as Java, Ruby or Python
- Anyone who is interested to learn C++ coding

1. C++ Programming Introduction

1. Overview
2. Syntax Notation
3. Evolution of C++
4. Quiz
5. Summary
6. Hands on

2. Lexical Conventions

1. Tokens
2. Comments
3. Identifiers
4. Keywords
5. Literals
6. Implementation dependencies
7. Quiz
8. Summary
9. Hands on

3. Basic Concepts

1. Declarations and Definitions
2. Scopes, Program and Linkage
3. Start and Termination
4. Storage Class
5. Types
6. Lvalues
7. Name Spaces
8. Numerical Limits
9. Quiz
10. Summary
11. Hands on

4. Standard Conventions

1. Integral Promotions
2. Integral Conventions
3. Float and Doubles
4. Floating and Integral
5. Arithmetic Conversions
6. Reference Conversions Pointers to Members
7. Quiz
8. Summary
9. Hands on

5. Expressions of C++

1. Primary Expressions
2. Postfix Expressions
3. Unary Operators Explicit Type Conversion
4. Pointer to Member Operators
5. Multiplicative Operators
6. Additive Operators
7. Shift Operators
8. Relational Operators
9. Equality Operators, Bitwise Operators
10. Logical Operators, Conditional Operators
11. Assignment Operators, Comma Operator
12. Constant Expressions
13. Quiz
14. Summary
15. Hands on

6. Statements

1. Labeled Statements
2. Expression Statements
3. Compound or Block Statement
4. Selection Statements
5. Iteration Statements
6. Jump Statements
7. Declaration Statement
8. Ambiguity Resolutions
9. Quiz
10. Summary
11. Hands on

7. Declarations

1. Specifiers
2. Enumeration Declarations
3. Asm Declarations
4. Linkage Specifications
5. Type —Safe Linkage
6. Limitations
7. Quiz
8. Summary
9. Hands on



8. Decelerators

1. Type Names
2. Meaning of Declarators
3. Function Definitions
4. Initializers
5. Pointers to Members
6. Quiz
7. Summary
8. Hands on

9. Classes

1. Class Names
2. Class Members
3. Member Functions
4. Static Members
5. Unions
6. Bit—Fields
7. Nested Class Declarations
8. Local Class Declarations
9. Local Type Names, Interfaces
10. Quiz
11. Summary
12. Hands on

10. Derived Classes

1. Multiple Base Classes
2. Virtual Functions
3. Abstract Classes
4. Summary of Scope Rules
5. Single Inheritance
6. Multiple Inheritance
7. Multiple Inheritance Casting
8. Multiple Inheritance & Implicit Conversion
9. Virtual Base Classes
10. Virtual Base Classes & casting
11. Single Inheritance and Virtual Functions
12. Multiple Inheritance and Virtual Functions
13. Instantiation of Virtual Functions
14. Virtual Base Classes with Virtual Functions
15. Renaming
16. Quiz
17. Summary
18. Hands on

11. Member Access Control

1. Access Specifiers
2. Access Specifiers for Base Classes
3. Access Declarations
4. Friends Protected Member Access
5. Access to Virtual Functions
6. Multiple Access
7. General Ideas
8. Per Class Protection
9. Access Control
10. Quiz
11. Summary
12. Hands on

12. Specific Member Functions

1. Constructors
2. Temporary Objects
3. Conversions, Destructors
4. Free Store, Initialization
5. Constructors & Destructors
6. Copying Class Objects
7. Temporary Class Objects
8. Temporary Elimination
9. Access Control and Special Functions
10. Summary of Member, Friend & Special Functions
11. Quiz
12. Summary
13. Hands on

13. Overloading

1. Declaration Matching
2. Argument Matching
3. Address of Overloaded Functions
4. Overloaded Operators
5. Quiz
6. Summary
7. Hands on

14. Templates

1. Templates
2. Class Templates
3. Type Equivalence
4. Function Templates
5. Declarations and Definitions
6. Member Function Templates
7. Friends
8. Static Members and Variables
9. Quiz
10. Summary
11. Hands on

15. Exception Handling

1. Exception Handling
2. Throwing an Exception
3. Constructors and destructors
4. Handling an Exception
5. Exception Specifications
6. Special Functions
7. Exceptions and Access
8. Quiz
9. Summary
10. Hands on

16. Strings and Character Manipulation

1. Strings as Character Arrays
2. String Library Functions
3. Reading and Writing Strings
4. Quiz
5. Summary
6. Hands on

17. Preprocessing

1. Phases of Preprocessing
2. Trigraph Sequences
3. Macro Definition and Expansion
4. File Inclusion
5. Conditional Compilation
6. Line Control
7. Error Directive
8. Pragmas
9. Null Directives
10. Predefined Names



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11. C++ Constructs verses #define
 12. Compatibility
 13. Quiz
 14. Summary
 15. Hands on



Project Work

After course completion, students will be assigned to work on live project to polish the technology skills you have acquired with us.