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# C/C++

C/C++ is basic of programming it clears programming concepts and logic, once one is clear with these basic programming can learn any other programming language easily. In this course at LogicCrays objective is learning with practical so that programming become easy for anyone.

## C COURSE CONTENT

- Introduction
- Declaring Variables
- Preprocessor Statements
- Arithmetic Operators
- Programming Style
- Keyboard Input
- Relational Operators
- For and while loops
- If, if else, relational operators
- Switch/case
- String and character handling
- Data validation examples
- Conditional expression operator
- Arrays
- Functions
- Additional assignment operator
- Sample programs so far
- Handling user input and Validation
- Formatters for printf() and scanf(), bit operations
- Structures
- Data conversion with itoa() and atoi()
- Files
- Pointers
- Linked Lists
- Dynamic Memory Allocation
- Preprocessor Statements, Macros, Conditional Compilation, typedef
- Enumerated Data Types
- Storage classes
- Unions
- Structure
- Register based variables, null statements and strings
- Command Line Arguments
- Pointers to functions
- Formatters for characters and strings

## C++ LANGUAGE - COURSE CONTENT

- Introduction to C++
- Creating a project
- Writing, compiling and running a program
- Variables and data types
- Expressions
- Constants
- Operators
- Type conversions
- Looping constructs: while, do...while, for loops
- If...else statements
- Switch/case construct
- Functions
- Passing arguments
- Function prototyping
- Default argument initializers
- Inline functions
- Arrays
- Array initialisation
- Multi-dimensional arrays
- Character arrays
- Working with character strings
- STORAGE CLASSES
- Global variables
- Pointers
- Pointer and arrays
- Pointers to character strings
- Arrays of pointers
- Memory slicing
- Pointers to functions
- Enumeration types
- C++ classes
- Data members and member functions
- Creating objects
- The new and delete operators
- Friends to a class
- Class initialisation
- Reference types
- Reference type arguments
- Function overloading
- Operator overloading
- Copy constructor
- Assignment operator
- Template classes
- Static class members
- File streams
- Inheritance
- Base classes and derived classes
- Inherited member access
- Base class initialisation
- Protected members of a class
- Virtual functions
- Virtual destructors
- Virtual base classes
- Virtual base class member access
- Constructor and destructor ordering
- Exception handling
- try...throw...catch block
- Nested catch handlers

## TRAINING INCLUDES THE FOLLOWING SERVICES

- Theoretical sessions
- Practical session
- Doubt solving session
- Analysis & Evaluation
- Assignments
- Certificate

