



C, C++ Training

C Training Topics:

Introduction to C

- The C Language and its Advantages
- The Structure of a C Program
- Writing C Programs
- Building an Executable Version of a C Program
- Debugging a C Program
- Examining and Running a C Application Program

Data Types and Variables

- Data Types
- Operands, Operators, and Arithmetic Expressions

Input/output Management

- The Input/output Concept
- Formatted Input Function

Control-Flow Statements

- The Control-Flow Program Statements
- Looping Statements
- The Data-checking process

Modular Programming with Functions

- The C Function
- Passing Data to Functions
- Passing an Address to Modify a Value in Memory
- Using Functions in the Checkbook Program
- C Standard Library Functions

Arrays, Pointers, and Strings

- Arrays , Pointers , Strings
- Using Arrays, Strings, and Pointers in the Checkbook Program



Structures and Union

- Structures, Union
- Arrays of Structures
- Passing Structures to Functions
- Nesting Structures

C++ Training Topics

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 initialization
- 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

C++ classes

- Data members and member functions
- Creating objects
- The new and delete operators
- Friends to a class
- Class initialization

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 initialization
- 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 and Nested Catch Handlers