

# Software Foundation Course C++

## About This Course

This advance C++ course throw lights on basic and advance concepts of C++ with OOps, XML, Editors and File handling.

C++ is a general-purpose programming language created by Bjarne Stroustrup as an extension of the C programming language, or C with Classes. The language has expanded significantly over time, and modern C++ has object-oriented, generic, and functional features in addition to facilities for low-level memory manipulation. It is almost always implemented as a compiled language, and many vendors provide C++ compilers, including the Free Software Foundation, LLVM, Microsoft, Intel, Oracle, and IBM

## Course Syllabus

### Module 1: Introduction to programming languages

- Compiler, Linker, Basic C++ Program
- Why C++

### Module 2: Conditional programming constructs

- C++ Conditions in if statement, Loops, Functions
- Array, Pointers

### Module 3: Classes and Objects

- Classes and Objects
- Constructors and Destructors

### Module 4: Polymorphism, Inheritance and Encapsulation

- Polymorphism, Inheritance and Encapsulation
- Access Modifiers, Dynamic Polymorphism

### Module 5: Operator Overloading

- Introduction
- Binary, Unary Operators

## **Module 6: File Handling**

- Classes for file handling
- Binary I/O, Editing the file

## **Module 7: Advanced Topics**

- Templates, Exception Handling
- Function Templates, IBM Information Management Software

## **Module 8: XML**

- What is XML and XML Path Language
- XML namespaces, XML schema, Elements, attributes, and other DTD items

## **Module 9: Introduction to Eclipse**

- Eclipse Architecture
- Editors

## **Module 10: Java Development Tools**

- JDT Perspectives
- Creating and Running Code Process

## **Module 11: The Eclipse Debugger**

- The Debug Perspective
- Stepping Through Code

## **Module 12: The Eclipse Plug-in Architecture**

- Finding plug-ins
- Installing remote plug-ins, Dependencies

## **Module 13: Eclipse Web Tools Platform (and related tools)**

- The Web Tools Platform
- Web Standard Tools (WST)
- The Ajax Tools Framework

## **Module 14: Software in Real World - The IBM Canvas**

- Application Design and Development
- Software in Real World- About Licensing
- Software in Real World - Road Ahead