



H.A IT Soft Technologies & Computer College

C / C++ Advance Course



Programming Fundamentals (C Language)

- Introduction to Programming Concepts
- Basics of **C programming language**
- Variables, Data Types & Operators
- Input / Output Functions
- Conditional Statements (if, else, switch)
- Loops (for, while, do-while)
- Functions & Recursion
- Arrays & Strings



Advanced C & Introduction to C++

- Pointers & Memory Management
- Structures & Unions
- File Handling in C
- Introduction to **C++**
- Differences Between C & C++
- Classes & Objects
- Constructors & Destructors
- Function Overloading



Object-Oriented Programming (C++)

- Pillars of OOP (Encapsulation, Inheritance, Polymorphism)
- Operator Overloading
- Virtual Functions
- Exception Handling
- Templates (Basics)
- File Handling in C++
- Mini Projects Development



Final Projects

- Student Management System
- Library Management System
- Console-based Application



Skills You Will Learn

- Strong Programming Logic
- Problem Solving Skills
- Memory Management
- Object-Oriented Programming (OOP)
- Software Development Basics