



**Softpro India Computer Technologies (P) Ltd.**

A Company Founded by Technocrats from IIT Kanpur & IET Lucknow  
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ESTD. 2004



**LEARNX**

# **SYLLABUS** *of* VIRTUAL INTERNSHIP **LOGIC BUILDING USING** **C++ & DATABASE**

PRESENTED BY  
**SOFTPRO INDIA**

## **MODULE 1: PROGRAMMING & LOGIC BASICS**

- Programming fundamentals
- Algorithm and flowchart
- Pseudocode and logic development

## **MODULE 2: C++**

### **FUNDAMENTALS**

- Structure of C++ program
- Variables and data types
- Operators
- Conditional statements

## **MODULE 3: LOOPS & PATTERN LOGIC**

- for, while, do-while loops
- Nested loops
- Star and number patterns

## **MINI PROJECT 1:**

**Logic-based C++ programs (Calculator, Number problems)**

## **MODULE 4: ARRAYS & STRINGS**

- One and two dimensional arrays
- Searching and sorting
- String handling

## **MODULE 5: FUNCTIONS & RECURSION**

- User-defined functions
- Parameter passing
- Recursion logic

## **MODULE 6: OOP USING C++**

- Class and object
- Constructors and destructors
- Inheritance and polymorphism

## **MINI PROJECT 2:**

**Console-based OOP project (Student/Employee Management)**

## **MODULE 7: FILE HANDLING**

- Read and write operations
- Record management

## **MODULE 8: DATABASE FUNDAMENTALS**

- DBMS and RDBMS
- SQL basics (CRUD operations)

## **MODULE 9: C++ WITH DATABASE (Conceptual)**

- Data flow understanding
- CRUD logic

## **FINAL MAJOR PROJECT:**

**Logic-based application with database**

## **TRAINING OUTCOMES:**

- **Strong problem-solving skills**
- **C++ programming confidence**
- **Database handling basics**
- **Interview readiness**