

SIX MONTHS TRAINING IN C-C++

IDE: Turbo, Dev and Code Blocks

Database: Traditional Approach(File Handling)

Introduction to C:

- History of C Language
- Syntax and IDE details
- Compiling and Running Programs
- Programming Structure
- Tokens
- Keywords
- Variables
- Identifiers
- Comments
- Backslash Characters

Data Types:

- Basic and User Defined
- Type Casting implicit and Explicit
- Operators
- Constants

Control Flow Statement:

- If-else
- Switch-case
- for, while, do while
- Break, continue, goto

Functions:

- Inbuilt
- User defined
- Recursion

Structures:

- 1-D Array and 2-D Array
- Array of Structures
- Union
- Storing Record of student, books or any other block

Pointers:

- Pointer to Pointer
- Pointer Arithmetic
- Pointer to Array
- Pointer to Functions
- Call By Value, Reference, Address
- Dangling Pointers
- Dynamic Memory Allocation

Files:

- Reading and Writing from file
- File opening modes
- File Pointers
- Read and write from one file to another file

Introduction to Object Oriented Language:

- History of C++ language
- Features of C++
- Dynamic Binding, Linking
- Data Abstraction
- Data Encapsulation
- Data Hiding
- Message passing

Introduction to C++:

- Creating class and object
- Creating functions inside or outside the class
- Accessing Class Members using Objects
- Constructr and its types
- Destrucotrs
- Copy Constructor

Inheritance:

- Types of Inheritance
- Method Overriding(Ambiguity)
- Virtual Class
- Constructors in Derived Class

Polymorphism:

- Compile time and Run time
- Function Overloading
- Constructor Overloading
- Operator Overloading(Unary operators, Binary Operators)
- Virtual Functions

Functions:

- Static Functions, Inline Functions, Friend Functions
- Casting one class to another
- Casting one class to basic data type

File Handling through Streams:

- Stream file Modes
- File Pointers

Exception Handling in C++:

- Try catch and throw keyword

Try catch and throw keyword:

- Client side Languages
- Server Side Languages
- Mobile App Languages

Assignments:

- An assignment to test your looping and array skills.
Rainfall for 12 months and finding the max, min, average, search and sort the rain data.

- An assignment to test the concept of Class, Object and Constructor
Intro: Read the values of a student (rno, name, class, marks, dob) and sort them and display them in tabular way.

- An Assignment to test the concept of Inheritance and Overloading
Intro: Create a Bank, Savings, Current Account Class. Display the menu to create bank account, deposit amount, withdraw amount, calculate Interest, Delete an Account and Check the transactions.

- An assignment to test the concept of File Handling:
Intro: Program to read the book details from a file and then store them in array, Sort the Record, Search the record, Write Data back to a new File.