CURRICULUM FOR C PROGRAMING

Curriculum Overview

This curriculum will take the learners through the concepts of C programming right from the basics to intermediate and then advanced. To thoroughly implement this , the curriculum is divided into eight parts.

They are as follows :-

1. **Introduction to C language language**
    - C language introduction
    - Features of C language
    - Benefits of C over other languages
    - Compilation of C programs
    - Hello world program in C

2. **Going through Variables, Data Types & Operators**
    - Variables and Keywords in C
    - Data Types in C
    - Operators and its types

3. **Understanding Control Flow statements**
    - Loops in C
    - Decision making statements in C
    - Switch statement in C
    - Continue Statement | Break Statement
    - Loops and Control statement practice questions

4. **Array and String Handling in C**
    - Arrays in C
    - Strings in C
    - String functions in C
    - Single - quoted and Double - quoted declaration of the char array

5. **Familiarisation with Functions**
    - Functions in C
    - Function Prototypes
    - Recursion concept

6. **Learning about Pointers , structures and unions**
    - Pointers in C | Double pointer
    - Structures | Union | Enumeration in C
    - Declare a pointer to a function
    - Pointer vs Array in C
    - Operations on struct variables in C

7. **Understanding Dynamic Memory Allocation (DMA)**
    - Dynamic Memory Allocation in C
    - Difference between malloc and calloc

8. **File management in C**
    - File handling in C
    - Merging Files
    - File Operations

Course Outcomes :

- Learners will be able to implement and showcase their skills in C programming.
- Learners will be able to design modular programs in C language .