

5/8/2020

# C Programming

Syllabus



# Phase I

## Introduction

- Important points about C
- Why Use C
- Features of C
- Applications of C

## Overview of C Language

- History of C
- First Program in C Hello World
- Basic Structure of C Programming
- Tokens, Keywords, Identifiers in C
- Format Specifiers
- Format Specifiers Examples

# Phase II

## Data Types in C Language

- Introduction to Data Types in C
- int Data Type in C
- float Data Type in C
- double Data Type in C
- char Data Type in C

## Variable in C Language

- Variable Introduction in C
- Variable Declaration and Initialization
- Variable types and Scope in C
- Local Variable in C
- Static Variable in C
- Global variables in C
- Storage Class in C

## Constant in C Language

- Constants in C

## Operators and Enums in C Language

- Introduction to Operator
- Arithmetic Operators in C
- Relational Operators in C
- Bit-wise Operators in C
- Logical Operators in C
- Assignment Operators in C

- Conditional Operator in C
- sizeof() Operator in C
- Operator Precedence

## Phase III

### Decision Making of C Language

- Decision Making in C Introduction
- if Statement
- if-else Statement
- Nested if Statement
- if else if Ladder
- switch case

### Loop control in C Language

- Loop Introduction in C
- while loop in C
- do while Loop In C
- for Loop in C

### Control Flow in C Programming

- break Statement in C
- continue Statement in C
- goto Statement in C

### Array in C Language

- Single Dimensional Array
- Multi-Dimensional Array in C

### String in C Language

- Introduction to String

## Phase IV

### Function in C Language

- Function in C
- Function Calling in C
- return type in Function
- Call by Value in C
- User Defined Function
- Predefined Functions

### String functions in C

- All String Functions

- Recursion in c
- Introduction to Recursion
- Direct and Indirect Recursion

## Pointer in C Language

- Pointer in C
- Types of pointer
- NULL pointer
- Dangling Pointer
- Void/Generic Pointers
- Wild Pointer
- Near, Far and Huge Pointer
- Pointer Expressions and Arithmetic
- Pointer and Array
- Strings as pointers
- Pointer to Function
- Call by Reference in C

## Phase V

### Structure in C Language

- Structure in C
- Nested Structure in C
- Array of Structures in C
- Pointer to Structure
- Structure to Function in C
- typedef in C
- typedef vs #define in C

### Union in C Language

- Union in C

### File Input/Output

- Introduction to File
- File Operation in c

### Dynamic Memory Allocation

- Introduction to DMA
- calloc() and free() function
- realloc() and free() function

### C Preprocessor

- Introduction about Pre-processor

# Command Line Arguments

- Introduction CLAs

