C Programming

Content	Hours (70 hours)
Overview Of C	0.5
Constants, Variables And Datatypes	1.5
Operators And Expressions	2+1
Managing Input Output Operations	3+2
Decision Making And Branching	2+2
Decision Making And Looping	2+2
User Defined Functions	2+4
Arrays	2+4
Strings	2+2
Structures	2+4
First Mini Project	8
Pointers	2+4
Dynamic Memory Allocation	1+2
File Management In C	1+3
C Language - The Preprocessor	1+2
Second Mini Project	4
FAQ	2

Who Should Attend: This course is for programmers who have experience in any other programming language or have been tasked with a C programming project, and other technical types including managers and customer support engineers who need to know C. And also for the students who have forgotten C language and want to learn a fresh.

Prerequisites: Students should have experience with any programming or an assembly language.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Write C programs that are non-trivial.
- Use the variety of data types appropriate to specific
- Programming problems.
- Utilize the modular features of the language.
- Demonstrate efficiency and readability.
- Demonstrate the use of the various control flow constructs.
- Use arrays as part of the software solution.
- Utilize pointers to efficiently solve problems.
- Include the structure data type as part of the solution.
- Create their own data types.
- Use functions from the portable C library.

Data Structures

Content	Hours (33 hours)
Introduction to data structure and algorithm, Stack , Queue, ADT ,Linked list	4+2
Basics Of Tree	2+2
Tree Traversals	2+2
Expression Tree	0.5
Types Of Trees	0.5
Special Attention On: Binary Tree	0.5+2
Binary Search Tree	0.5+1
Quick Sort	2+2
Merge Sort	2+1
Insertion Sort	2+2
Case Study	3

Who Should Attend: Anybody who has the need to write/use data structure using C/C++. And also for the students who are perusing for their campus interviews.

Prerequisites: Students should have taken Introduction to C/C++ courses or have equivalent knowledge.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Understand basic concepts of DS
- Write DS programs using C/C++