Introduction to C Programming-Part 1
Training Course Outline

Course Description:

Do you want to learn how to program in C? Are you looking for an easy way to learn C programming? Our two-part Introduction to C Programming training course is what you need.

Introduction to C Programming Part 1 training introduces you to the C programming language. You will start with the layout of a C program and venture into control statements, loops, functions and basic I/O. Your development skills will continue in Part 2, where you will learn more complex data types such as arrays, structures and pointers. Solid programming techniques will be emphasized as part of your C development course.

Course Objectives:

As a result of taking this C programming online training course, you will be able to:
- Write a basic C program
- Identify safe C programming practices
- Implement control statements
- Perform basic looping
- Modularize your C program

Course Prerequisites:

You should have experience with a programming language. While the syntax of the C language is covered thoroughly, there is an assumption of knowledge and skill with the operating system you will be working with, and with some underlying basics of programming.

Modular Outline:

Module 00: Introduction to C Programming Part 1 - Course Introduction

Module 01: What is C?
- History of C
- Purpose of the language
- Basic features of C

Module 02: A Simple C Program
- Layout
- Declarations
- Body
- Demo 1

Module 03: Variables & DataTypes
- Characters, integers, and floating point numbers
- Naming variables

- Constants
- Quiz 1

Module 04: Arithmetic Operators
- Addition, Subtraction, Multiplication, Division, Modulus
- Integer vs. Floating point arithmetic
- Precedence
- Assignment operators
- Increment/decrement operators
- Workshop

Module 05: Workshop 1 Solution

Module 06: Control Statements – Part 1
- If and if-else statements
- Relational, logical and equality operators
- The ! operator
- Value of an expression
- Workshop

Module 07: Workshop 2 Solution

Module 08: Control Statements – Part 2
- Condition Expressions
- Workshop & solution
- Macros

Module 09: Control Statements – Part 3
- Switch Statements
- Workshop & Solution

Module 10: Loops
- For, while, & do-while loops
- Workshop & Solution

Module 11: Functions
- Declaring Functions
- Returning values
- Variables & scope
- Understanding the stack
- Workshop & Solution

Module 12: Introduction to C Programming Part 1 - Course Summary