Course Overview

Course Details

Course Name: C Programming: From Basics to Advanced

Instructor: Michael Lee

Created On: 16 June, 2025

Updated On: 16 June, 2025

Price: 6000 INR

Duration: 8 weeks

Modules: 8

Language: English, Hindi

Level: Beginner, Expert

Certifications: Yes

Course Description

Learn the C programming language, the foundation of modern systems programming. This comprehensive course covers everything you need to know to become a proficient C programmer. We start with the basics of syntax, variables, and control flow, then move on to functions, arrays, and strings. The course features an in-depth exploration of pointers and memory management, the concepts that give C its power and performance. You will also learn about file I/O and how to create your own data structures.

What You'll Learn:

- Core C syntax and control structures.
- Functions, arrays, and strings.
- In-depth understanding of pointers and memory management (`malloc`, `free`).
- Working with structures and unions.
- File input and output operations.
- The C Preprocessor.

Who Is This Course For?

This course is for aspiring programmers and computer science students. It's an excellent first language to learn for a deep understanding of how computers work at a lower level.

Course Curriculum Details

Module 1: Module 1: Getting Started
2 Lessons

1. Introduction to C   **15min**

2. Setting up a C Compiler (GCC)   **25min**

Module 2: Module 2: C Fundamentals
2 Lessons

1. Variables, Data Types, and Operators   **40min**

2. Control Flow (if, else, switch, loops)   **35min**

Module 3: Module 3: Functions and Arrays
2 Lessons

1. Creating and Using Functions   **30min**

2. Arrays and Strings   **35min**

Module 4: Module 4: Pointers
3 Lessons

1. What are Pointers?   **30min**

2. Pointer Arithmetic   **25min**

3. Pointers and Arrays   **30min**

Module 5: Module 5: Memory Management
1 Lessons

1. Dynamic Memory Allocation: malloc, calloc, realloc, free   **40min**

Module 6: Module 6: Structures and Unions
1 Lessons

1. Defining and Using Structures   **30min**

Module 7: Module 7: File I/O
1 Lessons

1. Reading from and Writing to Files   **35min**

Module 8: Module 8: Final Project
1 Lessons

1. Build a Simple Command-Line Application   **1hr 30min**

This curriculum is subject to minor adjustments to ensure the most up-to-date and effective learning experience.