Getting Started with Coding in C

Total Duration: 2.5 hrs
Prerequisites: Knowledge of Programming skills

1. **Introduction & Setup**
   - What is C and why learn it?
   - C in real-world applications (systems programming, embedded, etc.)
   - Setting up the environment (e.g., Code::Blocks, VS Code with GCC, or an online compiler)

2. **C Language Basics**
   - Structure of a C program (#include, main(), {})
   - How code is compiled and executed
   - Writing your first "Hello, World!" program

3. **Variables & Data Types**
   - Declaring variables
   - Basic data types: int, float, char
   - Input/output: printf() and scanf()

4. **Operators & Control Flow**
   - Arithmetic, relational, logical operators
   - if, else if, else
   - switch statement (intro only)

5. **Loops in C**
   - for, while, and do-while loops
   - Loop control: break, continue

6. **Functions**
   - Why functions?
   - Defining and calling functions
   - Function arguments and return types

7. **Arrays (1D)**
   - Declaring and initializing arrays
   - Accessing elements
   - Simple array operations (e.g., sum of elements)