

C language learning plan

Day 1: Introduction to C

- Hour 1: Introduction to programming and C.
- Hour 2: History of C and its significance in programming.
- Hour 3: Installing a C compiler (e.g., GCC) and setting up the development environment.
- Hours 4-5: Writing and running your first "Hello, World!" program.

Day 2: Variables and Data Types

- Hour 1: Understanding **Variables and data types** in C.
- Hour 2: **Integers and floating-point numbers**.
- Hour 3: **Characters and strings**.
- Hour 4: Constants and the **const** keyword.
- Hours 5-6: Practice with **variable declaration and initialization**.

Day 3: Basic Input and Output

- Hour 1: Using **printf()** for output.
- Hour 2: Using **scanf()** for input.
- Hours 3-4: **Formatting output** and handling different data types. Ex:- **%d, %f** etc.
- Hours 5-6: Building simple programs that involve user input and output.

Day 4: Control Structures (Part 1)

- Hour 1: Introduction to control structures: Sequence, selection, and iteration.
- Hour 2: Using **if** statements for conditional execution.
- Hour 3: Using **else** and **else if** for multi-branch conditions.

- Hour 4: The `switch` statement.
- Hours 5-6: Writing programs involving conditional statements.

Day 5: Control Structures (Part 2)

- Hour 1: Introduction to loops: `while`, `for`, and `do-while`.
- Hours 2-3: Working with `while` and `for` loops.
- Hour 4: Working with `do-while` loops.
- Hours 5-6: Solving problems involving loops. Especially Printing different **** pattern program.

Day 6: Functions (Part 1)

- Hour 1: Introduction to functions and their importance.
- Hour 2: Function declaration, definition, and calling.
- Hour 3: Function parameters and return values.
- Hour 4: Scope and lifetime of variables.
- Hours 5-6: Writing code with functions.

Day 7: Functions (Part 2) :- (For Advance level, but not now necessary.)

- Hour 1: Recursion and recursive functions.
- Hour 2: Function prototypes.
- Hours 3-4: Writing programs that involve multiple functions.
- Hours 5-6: Debugging and testing functions.

Day 8: Arrays and Strings (Part 1)

- Hour 1: Introduction to arrays and their declaration.
- Hours 2-3: Working with one-dimensional arrays.

- Hour 4: Introduction to strings in C.
- Hours 5-6: Manipulating strings and arrays.

Day 9: Arrays and Strings (Part 2)

- Hour 1: Multidimensional arrays.
- Hours 2-3: Working with two-dimensional arrays.
- Hour 4: Arrays of strings (character arrays).
- Hours 5-6: Solving problems that involve arrays and strings.

Day 10: Pointers and Review

- Hour 1: Introduction to pointers and memory management.
- Hour 2: Working with pointers and arrays.
- Hour 3: Pointer arithmetic.
- Hour 4: Review of key concepts from Days 1-9.
- Hours 5-6: Final practice and programming exercises.



This schedule covers every essential C language concept that you should be aware of. 👍

Resources:-

<https://www.learn-c.org/>

Practice Platform:-

<https://www.hackerrank.com/domains/c>

