

# Introduction to C Language

Saturday, October 7, 2023 1:15 PM

## Day 1

### What is C?

C is a general-purpose programming language created by Dennis Ritchie at the Bell Laboratories in 1972.

It is a very popular language, despite being old. The main reason for its popularity is because it is a fundamental language in the field of computer science.

C is strongly associated with UNIX, as it was developed to write the UNIX operating system.

### Why Learn C?

- It is one of the most popular programming language in the world
- If you know C, you will have no problem learning other popular programming languages such as Java, Python, C++, C#, etc, as the syntax is similar
- C is very fast, compared to other programming languages, like [Java](#) and [Python](#)
- C is very versatile; it can be used in both applications and technologies

From <[https://www.w3schools.com/c/c\\_intro.php](https://www.w3schools.com/c/c_intro.php)>

### Structure of C Language

The basic structure of a C program is divided into 6 parts which makes it easy to read, modify, document, and understand in a particular format. C program must follow the below-mentioned outline in order to successfully compile and execute. Debugging is easier in a well-structured C program.

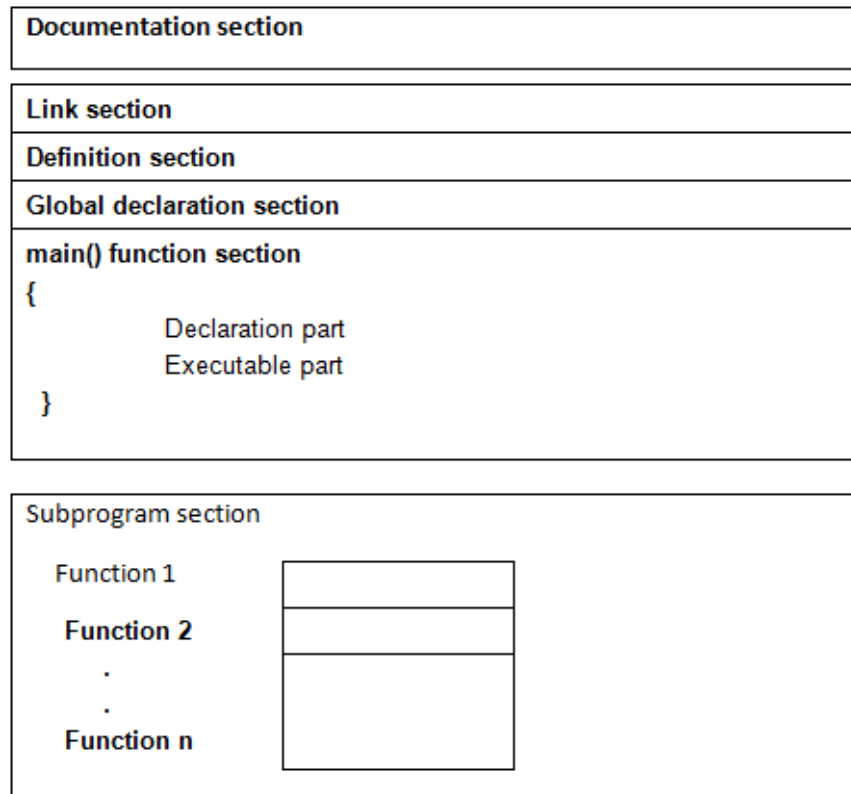
#### Sections of the C Program

There are 6 basic sections responsible for the proper execution of a program. Sections are mentioned below:

1. Preprocessor Section(Header Files )
2. Main() Function
3. Body of main function

From <<https://www.geeksforgeeks.org/structure-of-c-program/>>

Only focus on the mentioned sections and leave rest of the other sections for now .



### **C program Cycle to compile a program :**

Follow this link and read them carefully , it's a crucial part of understanding. If you understood this cycle then will understand the working of c program.

<https://www.javatpoint.com/compilation-process-in-c>

### **Syntax to write C program :**

[https://www.tutorialspoint.com/cprogramming/c\\_basic\\_syntax.htm](https://www.tutorialspoint.com/cprogramming/c_basic_syntax.htm)

Day2

### **What is Variable and data types ?**

[https://www.w3schools.com/cpp/cpp\\_variables.asp](https://www.w3schools.com/cpp/cpp_variables.asp)

### **What is difference between variable and constants?**

<https://www.geeksforgeeks.org/constants-vs-variables-in-c-language/>

**Scope of variable and constants in C Language .(Very important and I will test you in lab through different examples )**

<https://www.geeksforgeeks.org/scope-rules-in-c/>

### **Format specifier :**

<https://www.geeksforgeeks.org/format-specifiers-in-c/>

### **Escape sequences :**

Escape Sequence	Meaning
<code>\n</code>	New Line
<code>\t</code>	Horizontal Tab
<code>\b</code>	BackSpace
<code>\r</code>	Carriage Return
<code>\a</code>	Audible bell
<code>\'</code>	Printing single quotation
<code>\"</code>	printing double quotation
<code>\?</code>	Question Mark Sequence
<code>\\</code>	Back Slash
<code>\f</code>	Form Feed
<code>\v</code>	Vertical Tab
<code>\0</code>	Null Value
<code>\nnn</code>	Print octal value
<code>\xhh</code>	Print Hexadecimal value

#### **Input and output :**

<https://www.geeksforgeeks.org/basic-input-and-output-in-c/>

Day3

#### **Operators in C Language :**

<https://www.programiz.com/c-programming/c-operators>

[Must have Understanding of these operators ]

#### **Conditional logic :**

[https://www.w3schools.com/c/c\\_conditions.php](https://www.w3schools.com/c/c_conditions.php)

Must do practice .

Day4:

#### **For Loop :**

<https://www.programiz.com/c-programming/c-for-loop>

#### **While and do\_while loop :**

<https://www.programiz.com/c-programming/c-do-while-loops>

Practice as much you can with different examples.

#### **Break and Continue Statement:**

<https://www.programiz.com/c-programming/c-break-continue-statement>

Day5:

Practice all the conditional statements and loops.