C programming is a popular programming language used for creating system and application software. C language was developed by Dennis Ritchie for Unix Language Programming.

C programming language is used for developing system applications that forms a major portion of operating systems such as Windows, UNIX and Linux. Below are some examples of C being used.

* Database systems
* Graphics packages
* Word processors
* Spreadsheets
* Operating system development
* Compilers and Assemblers
* Network drivers
* Interpreters

It is used as a language programming for Unix, several web databases and writing languages for programmers.

C is a high-level and general purpose programming language that is ideal for developing firmware or portable applications. Originally intended for writing system software, C was developed at Bell Labs by Dennis Ritchie for the Unix Operating System (OS) in the early 1970s.

Ranked among the most widely used languages, C has a compiler for most computer systems and influenced many popular languages - notably C++.

C belongs to the structured, procedural paradigms of languages. It is proven, flexible and powerful and may be used for a variety of different applications. Although high-level, C and assembly language share many of the same attributes.

Following are C programming language features:

* Fixed number of keywords, including a set of control primitives, such as if, for, while, switch and do while.
* Multiple logical and mathematical operators, including bit manipulators.
* Multiple assignments may be applied in a single statement.
* Function return values are not always required and may be ignored if unneeded.
* Typing is static. All data has type but may be implicitly converted.
* Basic form of modularity, as files may be separately compiled and linked.
* Control of function and object visibility to other files via extern and static attributes.

**C Language Syntax Rules**

C language syntax specify rules for sequence of characters to be written in C language. The rule specify how character sequence will be grouped together to form **tokens**. A smallest individual unit in c program is known as C Tokens. Tokens are either keyword, identifier, constant, variable or any symbol which has some meaning in C language. A C program can also be called as collection of various tokens.

Example of C tokens,

int

curly braces { }

comments

semicolon ;

**Comments**

Comments are the simple text in c program that are not compiled by the compiler. We write comments for better understanding of the program.Though writing comments is not compulsory, but it is recommended to write. It make the code more readable.

There are two ways in which we can write comments.

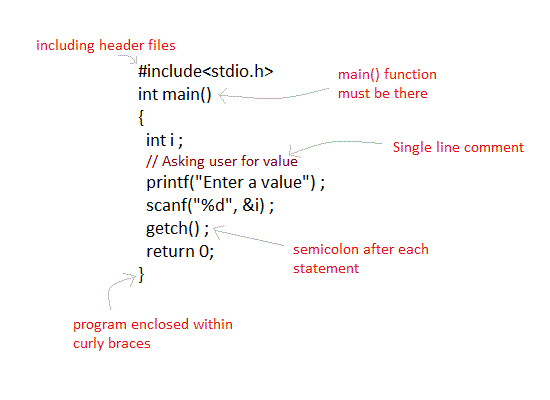
1. **Using //** - This is use to write a single line comment.
2. **Using /\* \*/** - The statements enclosed within /\* and \*/ , are used to write multi-line comments.

**Example of comments :**

1. Single line Comment
2. //This is a comment
4. Single line Comment
5. /\*This is a comment\*/
7. Multi line Comment
8. /\*This is a long
9. and valid comment\*/
11. Wrong Syntax
12. //this is not
13. a valid comment

**Some basic syntax rule for C program**

* C is a case sensitive language so all C instructions must be written in lower case letter.
* All C statement must be end with a semicolon.
* Whitespace is used in C to describe blanks and tabs.
* Whitespace is required between keywords and identifiers



the **syntax** of a computer language is the set of rules that defines the combinations of symbols that are considered to be a correctly structured document or fragment in that language.

The **syntax of the C programming language**, the rules governing writing of software in the language, is designed to allow for programs that are extremely terse, have a close relationship with the resulting object code, and yet provide relatively high-level data abstraction. C was the first widely successful high-level language for portable operating-system development.

Perhaps you meant to ask “What is **C-like syntax**?” If this is the case, then C-like syntax means that a language borrows the function and/or conditional definitions of C. For example, PHP is a language that has C-like syntax, so is JavaScript. [C syntax - Wikipedia](https://en.wikipedia.org/wiki/C_syntax#Syntax)

In C, a function can be defined as:

1. **int** myfunc(**int** i) { **return** i + i; }

Similarly in PHP:

1. **function** addme($i) { **return** $i + $i; }

And JavaScript:

1. **function** addme(i) { **return** i + i; }

Although these are different languages, the syntaxes are very similar to C. To make it even closer, you can define a function in C as follows:

1. addme(i) **int** i; { **return** i + i; } // returns int by default

But this comparison is not fair, since PHP and JavaScript are loosely-typed languages and C is strictly-typed. That’s why C has the “int” type indicator.

But another C-like strictly-typed language like Go - [The Go Programming Language](https://golang.org/)- has the function:

1. func addme(i **int**) **int** { **return** i + i; }

Pretty close right?

**Tokens in C**

A C program consists of various tokens and a token is either a keyword, an identifier, a constant, a string literal, or a symbol. For example, the following C statement consists of five tokens −

1. printf("Hello, World! \n");

The individual tokens are −

1. printf
2. (
3. "Hello, World! \n"
4. )
5. ;

**Semicolons**

In a C program, the semicolon is a statement terminator. That is, each individual statement must be ended with a semicolon. It indicates the end of one logical entity.

Given below are two different statements −

1. printf("Hello, World! \n");
2. **return** 0;

**Comments**

Comments are like helping text in your C program and they are ignored by the compiler. They start with /\* and terminate with the characters \*/ as shown below −

1. /\* my first program in C \*/

You cannot have comments within comments and they do not occur within a string or character literals.

**Identifiers**

A C identifier is a name used to identify a variable, function, or any other user-defined item. An identifier starts with a letter A to Z, a to z, or an underscore '\_' followed by zero or more letters, underscores, and digits (0 to 9).

C does not allow punctuation characters such as @, $, and % within identifiers. C is a **case-sensitive** programming language. Thus, *Manpower*and *manpower* are two different identifiers in C. Here are some examples of acceptable identifiers −

1. mohd zara abc move\_name a\_123
2. myname50 \_temp j a23b9 retVal

**Keywords**

The following list shows the reserved words in C. These reserved words may not be used as constants or variables or any other identifier names.

auto

else

long

switch

break

enum

register

typedef

case

extern

return

union

char

float

short

unsigned

const

for

signed

void

continue

goto

sizeof

volatile

default

if

static

while

do

int

struct

\_Packed

double

**Whitespace in C**

A line containing only whitespace, possibly with a comment, is known as a blank line, and a C compiler totally ignores it.

Whitespace is the term used in C to describe blanks, tabs, newline characters and comments. Whitespace separates one part of a statement from another and enables the compiler to identify where one element in a statement, such as int, ends and the next element begins. Therefore, in the following statement −

1. **int** age;

there must be at least one whitespace character (usually a space) between int and age for the compiler to be able to distinguish them. On the other hand, in the following statement −

1. fruit = apples + oranges; // get the total fruit

no whitespace characters are necessary between fruit and =, or between = and apples, although you are free to include some if you wish to increase readability.

Thanks for A2A

Reference: [C Basic Syntax](https://www.tutorialspoint.com/cprogramming/c_basic_syntax.htm)

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[Haris Ansar Khan](https://www.quora.com/profile/Haris-Ansar-Khan-2), former Petroleum Engineer at Rajiv Gandhi Institute of Petroleum Technology (2012-

Originally Answered: [What is the different syntax of the C program?](https://www.quora.com/What-is-the-different-syntax-of-the-C-program?no_redirect=1)

C programming follows top-down approach therefore main has to be declared before every function definition. It is not compulsory in C to declare the function prototype before its definition. Also for structures declared in C, its variable is declared using struct keyword. Wherever you'll use the structure name struct has to be used. There are no classes in C. Except this C is syntactically similar to C++.

views

Originally Answered: [What is meant by syntax in C programming?](https://www.quora.com/What-is-meant-by-syntax-in-C-programming?no_redirect=1)

The syntax of a Programming language(C or any other) is the set of rules that defines the combinations of symbols that are considered to be a correctly defined.Language can have different equivalent grammars, such as equivalent regular expressions (at the lexical levels), or different phrase rules which generate the same language. So its sort of grammer of programming languages which help to write a program.

Some of the basic syntax of C language are:

1. Every thing has a unique name, there are no duplicate names.
2. Every statement has to end with a semicolon, and should be written in only one line.
3. Every variable must have a 'type', defining it's memory requirement. E.g int or float .
4. Only codes written within a function are executed.

As C lang. doesn't provide object oriented concept hence most probably there would be chance of any program code likely to be as following -

#include<stdio.h>

#include<conio.h>

void main()

{

Urs program per requirements.

}

This is the basic one .One can modify it per needed ..