

Sr. No	Basis Of Distinction	C	C++
1	Nature Of Language	C is a structural or procedural type of programming language.	C++ is an object-oriented programming language and supports Polymorphism, Abstract Data Types, Encapsulation, among others. Even though C++ derives basic syntax from C, it cannot be classified as a structural or a procedural language.
2	Point Of Emphasis	C lays emphasis on the steps or procedures that are followed to solve a problem.	C++ emphasizes the objects and not the steps or procedures. It has higher abstraction level.
3	Compatibility With Overloading	C does not support function overloading.	C++ supports function overloading, implying that one can have name of functions with varying parameters.
4	Data Types	C does not provide String or Boolean data types. It supports primitive & built-in data types.	C++ provides Boolean or String data types. It supports both user-defined and built-in data types.
5	Compatibility With Exception Handling	C does not support Exception Handling directly. It can be done through some other functions.	C++ supports Exception. It can be done through try & catch block.
6	Compatibility With Functions	C does not support functions with default arrangements	C++ supports functions with default arrangements.

7	Compatibility With Generic Programming	C is not compatible	C++ is compatible with generic programming
8	Pointers And References	C supports only Pointers	C++ supports both pointers and references.
9	Inline Function	C does not have inline function.	C++ has inline function.
10	Data Security	In C programming language, the data is unsecured.	Data is hidden in C++ and is not accessible to external functions. Hence, is more secure
11	Approach	C follows the top-down approach.	C++ follows the bottom-up approach.
12	Functions For Standard Input And Output	scanf and printf	cin and cout
13	Time Of Defining Variables	In C, variable has to be defined at the beginning, in the function.	Variable can be defined anywhere in the function.
14	Namespace	Absent	Present
15	Division Of Programs	The programs in C language are divided into modules and functions.	The programs are divided into classes and functions in the C++ programming language.
16	File Extension	.C	.CPP

17	Function And Operator Overloading	Absent	Present
18	Mapping	Mapping between function and data is complicated in C.	Mapping between function and data can be done easily using 'Objects'.
19	Calling Of Functions	main() function can be called through other functions.	main() function cannot be called through other functions.
20	Inheritance	Not Possible	Possible
21	Functions Used For Memory Allocation And De-allocation	malloc() and calloc for Memory Allocation and free() function for De-allocation.	New and delete operators are used for Memory Allocation and De-allocation in C++.
22	Influences	C++, C#, Objective-C, PHP, Perl, BitC, Concurrent C, Java, JavaScript, Perl, csh, awk, D, Limbo	C#, PHP, Java, D, Aikido, Ada 95
23	Influenced By	B (BCPL,CPL), Assembly, ALGOL 68,	C, ALGOL 68, Simula, Ada 83, ML, CLU
24	Level of Language	Mid-level	High-level

25	Classes	C uses structures thereby, giving freedom to use internal design elements	class and structures
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