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HISTORY OF THE C++ LANGUAGE

The first programming languages were characterized by a subject orientation, which means that each language was designed to solve a certain class of problems (economic, business, mathematical, etc.).

The C programming language was developed in early 1973 at Bell Labs by Ken Thompson and Dennis Ritchie, and it allowed you to write programs that worked directly with the hardware.

Based on the success of UNIX, C became widely used and is now one of the most commonly used programming languages (available on most platforms).

It is the main language for low-level development and it is relatively simple when compared to other programming languages (the C language standard is 230 pages long (compared to 670 for Java and 1340 for C++)).

The C++ language has been developing since the early 1980s, it was created by Björn Strastrup of Bell Labs and was originally an extension of the C language to support working with classes and objects, allowing programs to be developed at a higher level of abstraction.

As a result, practical modeling tasks were made available to solve both in terms of development time (thanks to the use of Simula-like classes) and in terms of computation time (thanks to the speed of C).

The first C compiler with classes was called Cfront, which was derived from a C compiler called CPre. It is interesting that Cfront was written mostly in C with classes, which made it a self-maintaining compiler (a compiler that can compile itself).

In early 1983, many new functions were added to the language (virtual functions, overloading of functions and operators, references, constants), and thus the

resulting language was no longer just an updated version of the classical C language and was renamed from "C with classes" to "C++".

In 1985, Stroustrup's article "The C++ Programming Language" was published, and in the same year C++ was implemented as a commercial product and since C++ was not yet officially standardized, this made the book a very important reference book.

C++ is still the third most popular programming language according to the TIOBE Index's latest study of 2019, after Java & C, by knocking out Python.

C++ continues to evolve to meet modern requirements. (One of the groups that develops the C++ language and sends suggestions to the C++ standardization committee on how to improve is Boost, which is dedicated, among other things, to improving the language's capabilities by adding metaprogramming features to it).

The C++ fully supports the principles of object-oriented programming, including the three pillars on which it stands: encapsulation, inheritance and polymorphism.

"The C++ language owes a lot to the C language, and the C language remains a subset of the C++ language (but C++ eliminated some serious flaws in the C type system)," said Bjorn Strastrup in his interview.

The programming language C++ is now considered the dominant language which is used to develop commercial products, 90% of games are written in C++ using DirectX.