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C++ LANGUAGE

C++ is a high-level, general-purpose programming language created by Bjarne Stroustrup as an extension of the C programming language. The language has expanded significantly over time, and modern C++ has object-oriented, generic and functional features in addition to facilities for low-level memory manipulation. It is almost always implemented as a compiled language, and many vendors provide C++ compilers, including the Free Software Foundation, LLVM, Microsoft, Intel, Oracle, and IBM, so it is available on many platforms. In all higher education institutions, engineering graphics are put at an early stage of study.

C++ was designed with a bias toward system programming and embedded, resource-constrained software and large systems, with performance, efficiency and flexibility of use as its design highlights. C++ has also been found useful in many other contexts, with key strengths being software infrastructure and resource-constrained applications, including desktop applications, video games, servers (e.g. e-commerce, Web search, or SQL servers) and performance-critical applications (e.g. telephone switches or space probes).

The C++ standard consists of two parts: the core language and the standard library. C++ programmers expect the latter on every major implementation of C++; it includes aggregate types (vectors, lists, maps, sets, queues, stacks, arrays, tuples), algorithms (`find`, `for_each`, `binary_search`, `random_shuffle`, etc.), input/output facilities (`iostream`, for reading from and writing to the console and files).

C++ has been enormously influential. Lots of people say C++ is too big and too complicated, but in fact it is a very powerful language and everything there is for a really sound reason: it is not somebody doing a random invention, it is actually people trying to find a real solution. Now a lot of the programs that we take for granted today, that we just use, are C++ programs.