C++ (pronounced "see plus plus") is a <u>statically typed</u>, <u>free-form</u>, <u>multi-paradigm</u>, <u>compiled</u>, general-purpose <u>programming language</u>. It is regarded as an <u>intermediate-level language</u>, as it comprises a combination of both <u>high-level</u> and <u>low-level</u> language features.[2] It was developed by <u>Bjarne</u> <u>Stroustrup</u> starting in 1979 at <u>Bell Labs</u> as an enhancement to the <u>C language</u> and originally named **C** with Classes. It was renamed C++ in 1983.[3]

C++ is one of the most popular programming languages[4][5] and its application domains include systems software (such as <u>Microsoft Windows</u>), application software, device drivers, embedded software, high-performance server and client applications, and entertainment software such as <u>video games</u>.[6] Several groups provide both free and proprietary C++ <u>compiler</u> software, including the <u>GNU Project</u>, <u>Microsoft</u>, <u>Intel</u> and <u>Embarcadero Technologies</u>. C++ has greatly influenced many other popular programming languages, most notably <u>C#</u> and <u>Java</u>.

C++ is also used for <u>hardware design</u>, where the design is initially described in C++, then analyzed, architecturally constrained, and scheduled to create a <u>register-transfer level</u> <u>hardware description language</u> via <u>high-level synthesis</u>.[7]

The language began as enhancements to <u>C</u>, first adding <u>classes</u>, then <u>virtual functions</u>, <u>operator overloading</u>, <u>multiple inheritance</u>, <u>templates</u>, and <u>exception handling</u> among other features. After years of development, the C++ programming language standard was ratified in 1998 as <u>ISO/IEC 14882</u>:1998. That standard is still current, but is amended by the 2003 technical <u>corrigendum</u>, <u>ISO/IEC 14882</u>:2003. The next standard version (known informally as <u>C++0x</u>, in reference to the long-standing expectation that it would be released sometime before 2010) is in development; its final draft was approved on March 25, 2011 and the formal specification is expected to be published in the summer of 2011.[8]