

## C++ 1\_1

### 1.1 Intro to c++

C++ is a general-purpose, case-sensitive, free-form programming language that supports procedural, object-oriented, and generic programming.

C++ is regarded as a middle-level language, as it comprises a combination of both high-level and low-level language features.

C++ was developed by Bjarne Stroustrup of AT&T Bell Laboratories in the early 1980's, and is based on the C language. The "++" is a syntactic construct used in C (to increment a variable), and C++ is intended as an incremental improvement of C. Most of C is a subset of C++, so that most C programs can be compiled (i.e. converted into a series of low-level instructions that the computer can execute directly) using a C++ compiler.

C++ is a superset of C, and that virtually any legal C program is a legal C++ program.

### Object-Oriented Programming

C++ fully supports object-oriented programming, including the four pillars of object-oriented development:

- Encapsulation
- Data hiding
- Inheritance
- Polymorphism

### Use of C++

- C++ is used by hundreds of thousands of programmers in essentially every application domain.
- In Adobe Systems All major applications are developed in C++: Photoshop & ImageReady, Illustrator, Acrobat, InDesign, GoLive
- C++ is widely used for teaching and research because it is clean enough for successful teaching of basic concepts.
- Anyone who has used either an Apple Macintosh or a PC running Windows has indirectly used C++ because the primary user interfaces of these systems are written in C++.
- [Amazon.com](https://www.amazon.com), Facebook, Google, HP, IBM, Microsoft, Mozilla, Nokia & many more companies uses C++ language.