C++ is an object-oriented programming language. It is an extension to [C programming](https://www.javatpoint.com/c-programming-language-tutorial).

C++ is a powerful, general-purpose programming language that was created by **Bjarne Stroustrup** in the early 1980s at Bell Labs as an extension of the C programming language. It was designed to have both **high-level and low-level capabilities**, making it suitable for system programming, game development, real-time applications, and more.

It was develop for adding a feature of **OOP (Object Oriented Programming)** in C without significantly changing the C component.

**Features of C++**

1. **Object-Oriented Programming (OOP)**: C++ supports encapsulation, inheritance, and polymorphism, allowing for the creation of reusable and modular code.

2) **Memory Management**: C++ allows manual memory management using pointers, dynamic memory allocation (new/delete), and references, giving fine control over memory usage.

3) **Multi-paradigm**: While primarily object-oriented, C++ also supports procedural and generic programming (via templates).

4) **Templates**: C++ supports function and class templates, enabling code reusability and type safety, especially in generic algorithms and data structures.

5) **Low-Level Manipulation**: It provides low-level access to memory through pointers, allowing for high performance and hardware manipulation.

6) **Standard Template Library (STL)**: C++ offers a rich set of template-based libraries, including containers, algorithms, and iterators.

7) **Performance**: C++ is designed for high performance, providing direct control over system resources, making it ideal for systems programming and applications requiring speed.

8) **Exception Handling**: C++ supports structured exception handling with try, catch, and throw keywords, providing a way to handle errors effectively.

9) **Function Overloading & Operator Overloading**: C++ allows functions and operators to be redefined for different data types, increasing flexibility.

10) **Namespaces**: C++ supports namespaces, which help avoid name conflicts and organize code better.