

C Tutorial 01

01. A programming language is a special purpose, limited language and a set of rules & symbols used to construct a computer program. The main use of developing a computer program is to develop different types of software's.

02. (a) Source Code vs. Machine Code

Source code is the programming of non-executable but standardized language code which converts it into machine understandable code which is called machine code.

(b) High Level Language vs. Low Level Language

HLL uses English like language, portable & machine independent. But LLL use binary code, machine dependent & not portable.

(c) Compiler vs. Interpreter

A compiler translates code from a high-level programming language into machine code before the program runs. An interpreter translates code written in a high-level programming language into machine code line-by-line as the code runs.

(d) Structured Language vs. Object Oriented Language

The main difference between structured and object-oriented language is the structured language allows developing a program using a set of modules or functions. While the object-oriented language allows constructing a program using a set of objects and their interactions.

(e) C vs. C++

C is a structural or procedural programming language that was used for system applications and low-level programming applications. Whereas C++ is an object-oriented programming language having some additional features like Encapsulation, Data Hiding, Data Abstraction, Inheritance, Polymorphism, etc.

(f) C++ v. Java

C++ is used more in large-scale development, like for banks or governments, whereas Java creates more consumer products like apps, software, and video games.

(g) Syntax error vs. Logical error

Syntax errors: errors because of the syntax of the language is not respected. Logical errors: errors because of the specification is not respected.