

C Language Overview

This chapter describes the basic details about C programming language, how it emerged, what are strengths of C and why we should use C.

The C programming language is a general-purpose, high-level language that was originally developed by Dennis M. Ritchie to develop the UNIX operating system at Bell Labs. C was originally first implemented on the DEC PDP-11 computer in 1972.

In 1978, Brian Kernighan and Dennis Ritchie produced the first publicly available description of C, now known as the K&R standard.

The UNIX operating system, the C compiler, and essentially all UNIX applications programs have been written in C. The C has now become a widely used professional language for various reasons.

- Easy to learn
- Structured language
- It produces efficient programs.
- It can handle low-level activities.
- It can be compiled on a variety of computer platforms.

Facts about C

- C was invented to write an operating system called UNIX.
- C is a successor of B language, which was introduced around 1970.
- The language was formalized in 1988 by the American National Standard Institute. (ANSI).
- The UNIX OS was totally written in C by 1973.

- Today, C is the most widely used and popular System Programming Language.
- Most of the state-of-the-art softwares have been implemented using C.
- Today's most popular Linux OS and RDBMS MySQL have been written in C.

Why to use C?

C was initially used for system development work, in particular the programs that make up the operating system. C was adopted as a system development language because it produces code that runs nearly as fast as code written in assembly language. Some examples of the use of C might be:

- Operating Systems
- Language Compilers
- Assemblers
- Text Editors
- Print Spoolers
- Network Drivers
- Modern Programs
- Databases
- Language Interpreters
- Utilities

C Programs

A C program can vary from 3 lines to millions of lines and it should be written into one or more text files with extension ".c"; for example, hello.c. You can use "vi", "vim" or any other text editor to write your C program into a file.

This tutorial assumes that you know how to edit a text file and how to write source code using any programming language.