

# 003 - FEATURES OF C PROGRAMMING LANGUAGE.

C programming language was developed in 1972 by Dennis Ritchie at bell laboratories of AT&T (American Telephone & Telegraph), located in the U.S.A.

## 1) SIMPLE

C is a simple language in the sense that it provides a structured approach (to break the problem into parts), the rich set of library functions, data types, etc.

## 2) Machine Independent or Portable

C programs can be executed on different machines with some machine specific changes.

## 3) Mid-Level Programming Language

C is intended to do low-level programming. It is used to develop system applications such as kernel, driver, etc.

It also supports the features of a high-level language.

That is why it is known as mid-level language.

## 4) Structured Programming Language

C is a structured programming language in the sense that we can break the program into parts using functions

## 5) Rich Library

C provides a lot of inbuilt functions that make the development fast.

## 6) Memory Management

It supports the feature of dynamic memory allocation.

In C language, we can free the allocated memory at any time by calling the free() function.

## 7) Speed

The compilation and execution time of C language is fast since there are lesser inbuilt functions and hence the lesser overhead.

## 8) Pointer

C provides the feature of pointers.

We can directly interact with the memory by using the pointers.

We can use pointers for memory, structures, functions, array, etc.

## 9) Recursion

In C, we can call the function within the function. It provides code reusability for every function.

Recursion enables us to use the approach of backtracking.

## 10) Extensible

C language is extensible because it can easily adopt new features.

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