Learn CODE: Start with C

Article is prepared by –

Sorowar Mahabub, Studies B.Sc in CSE,

Int' Islamic University Chittagong (IIUC)

Cell: 01834756433, 01521564157(whasApp available)

Email : sorowarmahabub1709vip@gmail.com

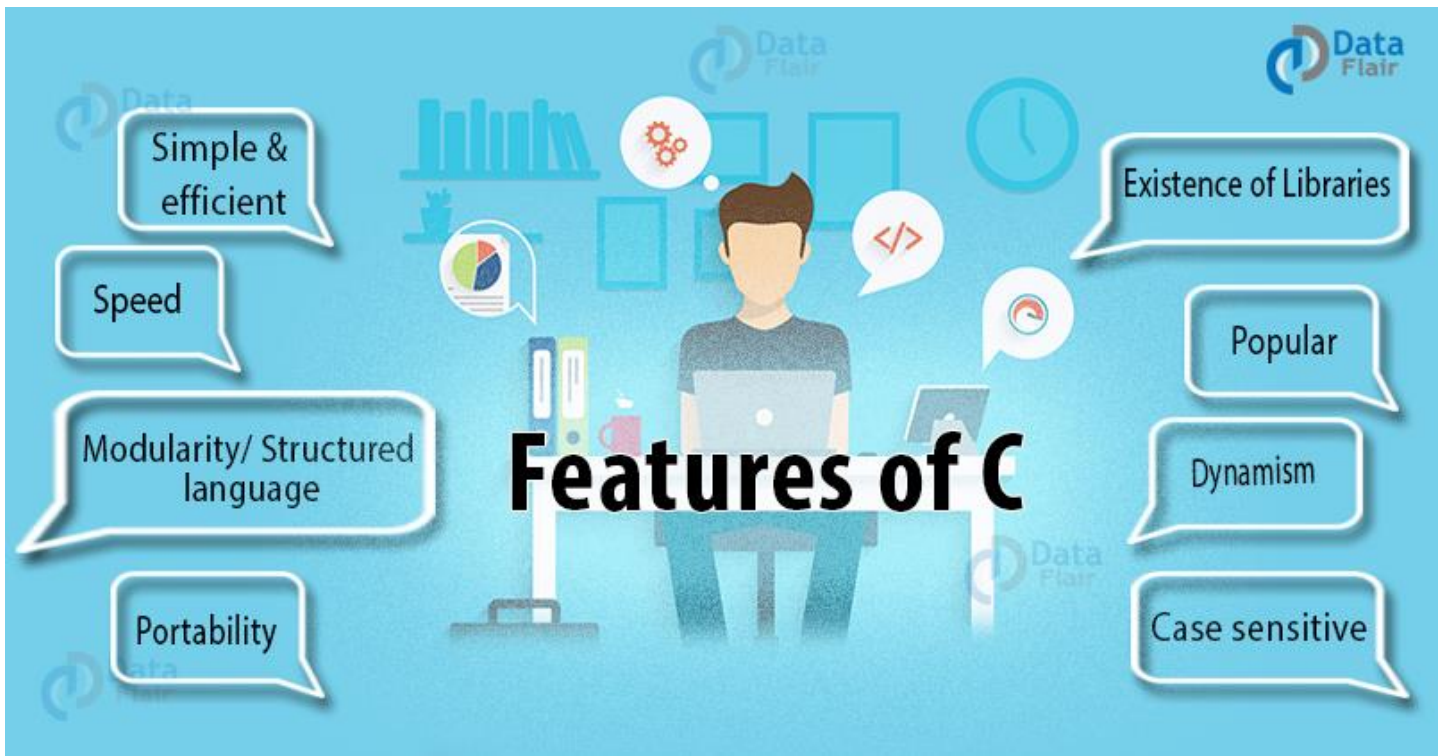*Article Reference : Google, DataFlair_blog*

8 Crucial Features of C Language

(What is the Reason Behind its Popularity?)

Have you ever wondered, why C is still so popular? Today, the market is lead by two strong programming languages – Java and Python. But the demand for C programming language is not affected by these two. What is so special about C? Why are industries hiring C professionals? All of these queries can be resolved by discussing the features of the C language.

Features of C programming language will brief you with its unique qualities. So, don't waste your time and explore the reasons to learn C.

Best Features of C Programming Language

We can differentiate every programming language by its features as it makes the language special and unique. These are some major features of C programming that makes it demanding in IT sector.

1. Portability

It refers to the usability of the same fragment of code in different environments. C programs are capable of being written on one platform and being run on another with or without any modification. Let's understand with an example-

Suppose we wrote a program to find the area of a right-angled triangle on CodeBlocks using C language, the same code can be written or modified by generalizing any triangle using Heron's formula on Turbo C3; it will work nonetheless, provided the modification made is error-free.

2. Modularity/Structured Language

This feature of C language allows the program to be splintered (broken) into smaller units and run individually with the help of functions. In simple words, modular programming refers to the software design technique, which increases the number of fragments of the same code. For instance, you want to find the area of a square, a rectangle and, a triangle. Instead of writing the code as a whole, we can divide it into separate functions, one for finding the area of a square, a rectangle, and triangle respectively. It guarantees fewer chances of errors and makes it visually appealing and more organized.

3. Simple and Efficient

The **syntax style of C programming** is easy to comprehend and can be used to design applications that were previously designed by assembly language. In high schools or colleges, C is generally taught as an introductory programming language as it is a well-established fact that it is easier to learn any other programming language in the long run if you are well acquainted with C.

4. Speed

Since it is a compiler-based language, it is comparatively faster than other programming languages like **Java or Python**, which are interpreter based. A compiler considers the entire program as input and thereby generates an output file with the object code whereas an interpreter takes instruction by instruction as input and then generates an output but does not generate a file.

5. Popular

It is one of the most extensively used languages in the development of operating and embedded systems. Needless to mention how popular it is.

6. Existence of Libraries

C language comprises of its library which has a wide range of built-in functions. Even the user-defined functions can be added to the C library. It gives the user a wide latitude of scope to develop his own functions for implementing problems for later use and implementation.

7. Dynamism

It supports the *feature of DMA* (Dynamic Memory Allocation), which helps in the utilization and management of memory. Among all the features of C, dynamism is unique. Using DMA, the size of a data structure can be changed during runtime using some predefined functions in the C library such as ***malloc(), calloc(), free() and realloc()***.

8. Case Sensitive

It treats lowercase and uppercase characters differently. For instance, if we declare a variable 'x' of integer type, it would connote a different meaning altogether if we type 'X' rather than 'x'.

Features of C language have not ended yet. Now, we are going to uncover the secret behind its popularity.

Why C is Popular?

After the birth of Unix because of the advent of the C language, it revolutionized the kingdom of science and technology. The various features of C make it popular. In today's world, every programmer or software developer who has achieved milestones in his life is very much familiar with the concept of C programming. Not only is it a fundamental language but it is permissive in nature as well. It allows the user to manage program memory as it offers the feature of dynamic memory allocation which makes it much faster than any other language. Today, every computer literate person is aware of the term "C Programming".

Summary

We shed light on the salient features of C programming by motivating the learners to study this language for the features it offers, making it unique and ubiquitous. We successfully discovered the secret behind the popularity of C. Currently, C is used in many popular industries, and its popularity and shine are not going to fade at least till the next decade.

Bismillah Hir Rahmanir Rahim

"Let's appear in thy smiling"

Md. Sorowar Mahabub Rabby | 01834-756433
01756-043655

Studies B. Sc in CSE(Computer Science & Engineering),
Int' Islamic University Chittagong (IIUC).

Baroiyerhat, Mirsharai, Chittagong.

SOrowar Mahabub   Sorowar Mahabub
sorowarmahabub1709vip@gmail.com