

C - PROGRAMMING

INTRODUCTION

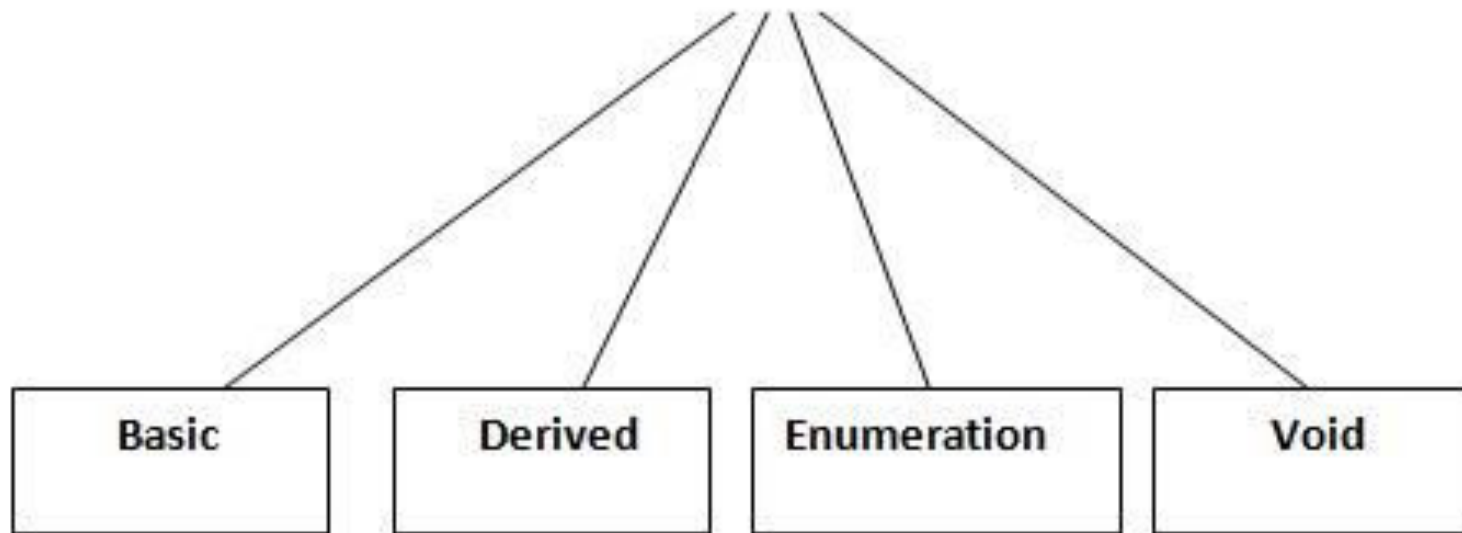
C is a general-purpose, procedural, imperative computer programming language developed in 1972 by Dennis M. Ritchie at the Bell Telephone Laboratories to develop the UNIX operating system. C is the most widely used computer language. It keeps fluctuating at number one scale of popularity along with Java programming language, which is also equally popular and most widely used among modern software programmers.

FEATURES OF C

C is the widely used language. It provides many features that are given below.

- Simple**
- Machine Independent or Portable**
- Mid-level programming language**
- structured programming language**
- Rich Library**
- Memory Management**
- Fast Speed**
- Pointers**
- Recursion**
- Extensible**

Data Types in C



Data Types

There are the following data types in C language.

Basic Data Type int, char, float, double

Derived Data Type array, pointer, structure, union

Enumeration Data Type enum

Void Data Type void

C Operators

An operator is simply a symbol that is used to perform operations. There can be many types of operations like arithmetic, logical, bitwise, etc.

There are following types of operators to perform different types of operations in C language.

- Arithmetic Operators
- Relational Operators
- Shift Operators
- Logical Operators
- Bitwise Operators
- Ternary or Conditional Operators
- Assignment Operator
- Misc Operator

2 ways to define constant in C

There are two ways to define constant in C programming.

const keyword

#define preprocessor

First C Program

Before starting the abcd of C language, you need to learn how to write, compile and run the first c program.

To write the first c program, open the C console and write the following code:

```
#include <stdio.h>
int main(){
printf("Hello C Language");
return 0;
}
```

#include <stdio.h> includes the **standard input output** library functions. The printf() function is defined in stdio.h .

int main() The **main() function is the entry point of every program** in c language.

printf() The printf() function is **used to print data** on the console.

return 0 The return 0 statement, returns execution status to the OS. The 0 value is used for successful execution and 1 for unsuccessful execution.