

① what is C language?

② C is a general-purpose, procedural, and imperative programming language developed in 1972 by Dennis Ritchie at Bell Labs. It's one of the most influential and widely used programming languages of all time.

③ applications of C Programming?

C is a versatile language with a wide range of applications:

- ⇒ C is widely used to build operating systems because it is fast and close to hardware. Ex:- windows OS parts.
- ⇒ C is used in small, low-level devices where efficiency is important. Ex:- Microcontrollers (Arduino, PIC, ARM)
- ⇒ C is ideal for developing System-level tools. Ex:- compilers (GCC), interpreters, Device & Network drivers.
- ⇒ C is used for performance-critical parts of games. Ex:- Game engines, physics engines.

④ what is variable?

Variables act like containers which is used to store the information. Information - floats, variables.

Data type decides what type of information holds in the variable.

⑤ what are different data types in C programming?

In C programming, data types define the type of data a variable "can" store. They help the compiler understand how much memory to allocate and how to interpret the stored value.

C data types are classified as:

1. Basic Types :- int, float, double, char.
2. Derived Types :- arrays, pointers, functions.
3. Enumeration Types :- enum
4. User-defined Types :- struct, union, typedef.

⑤ what is format specifier?
⇒ format specifier tells the what type of information holds in the variable.
⇒ format specifiers are special characters used in C programming to specify the format of input/output operations, such as printf() and scanf().