

C is used to build operating systems because it provides low-level access to memory and hardware.

## 2. Embedded Systems:

C is the most common language for programming microcontrollers and embedded devices.

## 3. System programming:

C is used to develop system-level software.

## 4. Game Development:

C is used in game engines where high performance is required.

## 5. Data base Systems:

Core parts of several databases are written in C.

## 6. Networking and Communication:

C is often used to build network tools and protocols.

## 7. portable Applications:

C programs can be compiled for many platforms, making it ideal.

3) What is Variable?

→ A variable is a Symbol or name that represents a value that can change.

1. Math :

A variable is a letter used to stand for an unknown or changed numbers.

$$\text{Ex: } x + 5 = 1$$

2. Programming :

A variable is a named storage location in memory that holds data, and its value can change while the program runs.

3. Science :

A variable is any factor that can change in an experiment.

- \* Independent Variable : you change it
- \* Dependent variable : you measure it
- \* Controlled variable : you keep it constant.

5. What is format specifier?

→ A format specifier is a placeholder used inside a formatted string to tell the compiler or interpreter.

→ format specifiers are used in languages like C, C++, Java, python etc.

+ In C/C++

common format specifiers :-

Specifier	Meaning	Example
%d	Integer (decimal)	10
%f	float / double	10.50
%.2f	float with 2 decimal places	10.50
%c	character	A
%s	string	Hello
%u	unsigned integer	20
%ld	long integer	1234
%p	pointer address	0x7ff

If you'd like, I can also give

examples in a specific language - C,

Java, python etc.....



1) What is C Language?

Ans: → C is a general-purpose, procedural Computer programming language.

→ It was developed in the early 1970s by Dennis Ritchie at Bell Labs.

→ C is known for being efficient, fast, and providing low-level memory

→ It is a popular choice for developing operating systems, software systems and various applications.

→ It has influenced many other programming languages, including

C++, C#, and Java.

→ By design, C gives the programmer relatively direct access of features of the typical CPU architecture.

2) What are Applications of C program

Ans: → C is one of the most widely used programming languages, and its applications span many fields because it is fast, efficient, and close to the hardware.