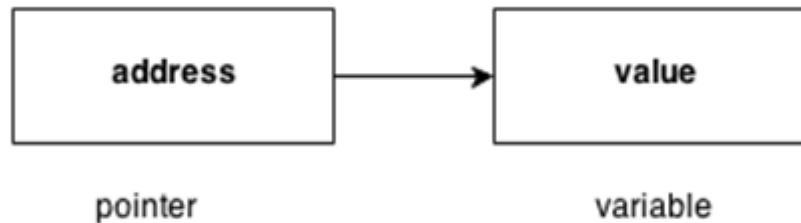


Pointer

Pointers -

- The pointer in C++ language is a variable, it is also known as locator or indicator that points to an address of a value.



Advantage of pointer -

- 1) Pointer reduces the code and improves the performance, it is used to retrieving strings, trees etc. and used with arrays, structures and functions.
- 2) We can return multiple values from function using pointer.
- 3) It makes you able to access any memory location in the computer's memory.

Usage of pointer -

There are many usage of pointers in C++ language.

- 1) Dynamic memory allocation** - In c language, we can dynamically allocate memory using malloc() and calloc() functions where pointer is used.
- 2) Arrays, Functions and Structures** - Pointers in c language are widely used in arrays, functions and structures. It reduces the code and improves the performance.

Symbols used in pointer -

Symbol	Name	Description
& (ampersand sign)	Address operator	Determine the address of a variable.
* (asterisk sign)	Indirection operator	Access the value of an address.

Declaring a Pointer

- **Pointer to int** – `int *a;`
- **Pointer to char** – `char *c;`

```
#include<iostream.h>
void main()
{
    int number = 30;
    int *p;
    p = &number;

    cout<<"Value of number: "<<number;
    cout<<"Value of p: "<<p;
    cout<<"Value of *p: "<<*p;
}
```