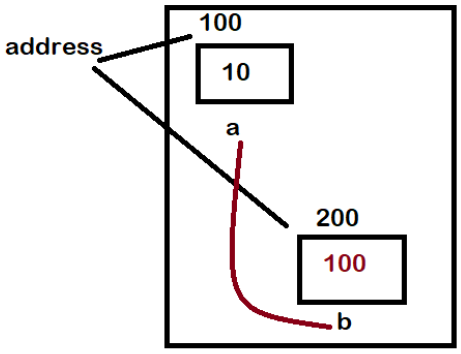
Pointers

Pointer is a variable which stores the address of another variable




```
int a=10,*b;
b=&a;
```

Declaration of Pointer Variables:

It is as same as normal variable creation but the only thing we preceded with * symbol Infront the variable

Syntax

Datatype *variable name;

Examples:

Int *no;
Float *b;
Char *c;
Str *a[10];

Note:

Pointer Variable Occupies only 2 bytes size in the memory

Advantages

- Dynamic Memory Allocation
- Dynamic Memory Deallocation
- Allow to return more than on value from a function
- It allows to access data using address
- Pointers are used to solve complex applications

Disadvantages

- It is dangerous
- It is difficult to use
- It is difficult to understand

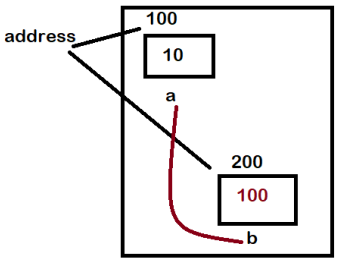
Pointer Operators

It allows only two types of operators

1. *
2. &

&:

It always gives you the address of another variable, it is also called as address operator

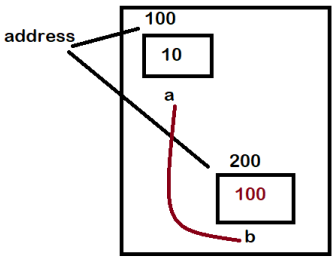



```
int a=10,*b;
b=&a;

&a=100
&b=200
```

*

It gives the value of variable which the pointer variable is pointing it is called as value at address pointer

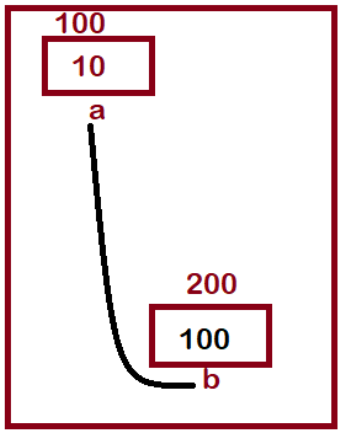


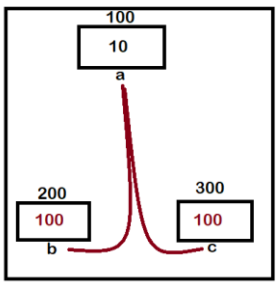

```
int a=10,*b;
b=&a;

*b=10
*a=Not Applicable
```

Pointer address

we can assign pointer variable to normal variable or another pointer variable also





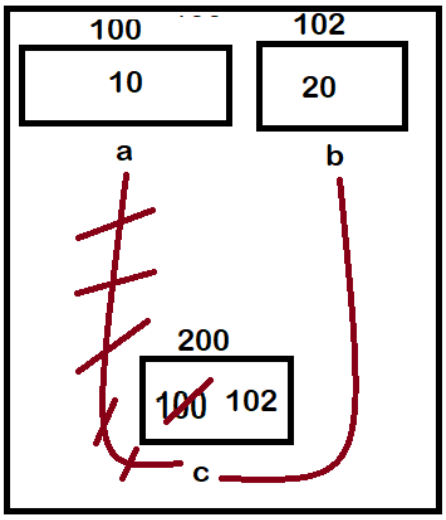

```
int a=10,*b,*c;
b=&a;
c=b;
```

Pointer Operations

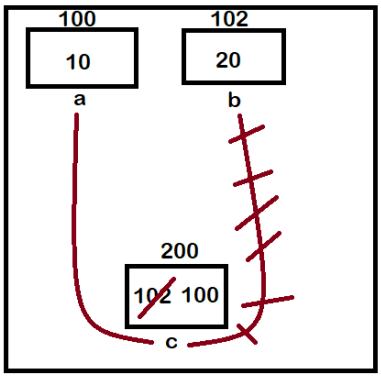
We can perform only 2types of operations using pointers

1.++

2.- -




```
int a=10,b=20,*c;
c=&a;
c++;
```




```
int a=10,b=20,*c;
c=&b;
c-- ;
```