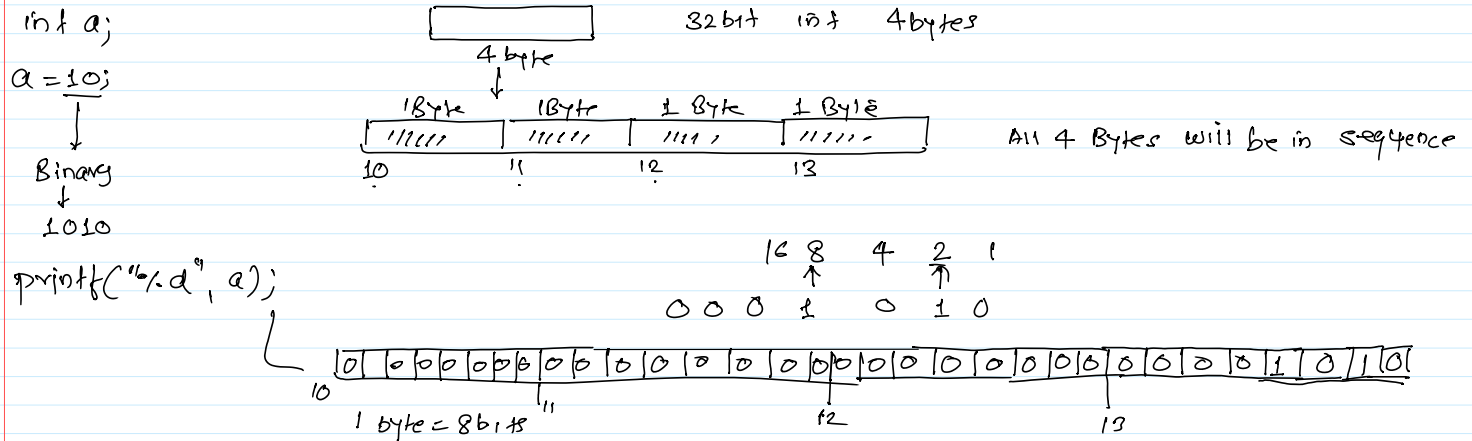


Pointer in C programming

→ A pointer is a special variable that stores address of another.

address mean Memory address



→ Pointer can store address of any datatype.
→ if its int type value then we need int type pointer
→ if its char type value then we need char type pointer

int a = 10;
int *ptr;
→ ptr is a pointer to int

ptr = &a;

Advantage: using pointers you can access value of variable

printf("%d", a); ⇒ 10

printf("%d", *ptr); ⇒ 10

* is used to dereference pointer

int * ptr int pointer

char pointer:- char * ptr;
float pointer:- float * ptr;
double pointer:- double * ptr;

Syntax of pointer? datatype * anyname;

Example of char pointer -

char ch = 'A';

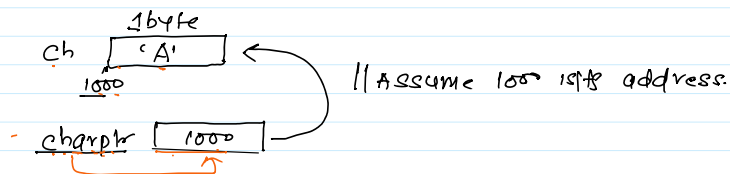
char * charptr;

charptr = &ch;

printf("%c", ch); ⇒ A

printf("%c", *charptr); ⇒ A

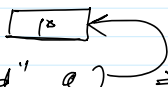
printf("%p", charptr); ⇒ Address of ch



int a = 10

printf("%d", a); ⇒ 10

`printf("%p", char ptr);` $\Rightarrow$ Address of `ch`
 $\downarrow$
1000 (Address)

`int a = 10` 
`printf("%d", a);` $\Rightarrow 10$

Note:- Value of any pointer is always address.

`%p` format specifier to print address.

* `char *ptr;` // Not assigning address of any variable
- `printf("%p", ptr);` ? } Not good practice
- `printf("%c", *ptr);` ? } `ptr` Garbage

"Pointer saves memory."