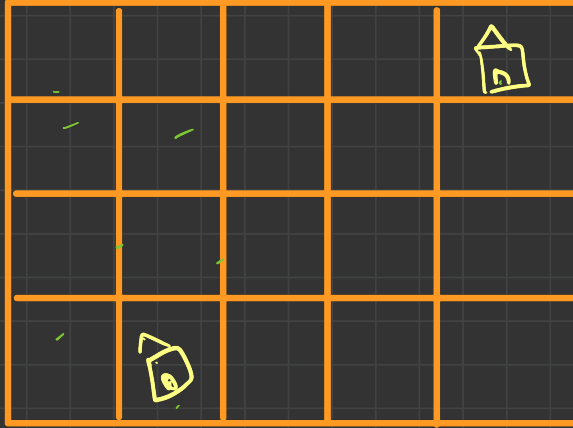


Pointers in C++

1 year
3-4 years



@sunfire Sensei

4 byte

int x = 4;

conf < x;
0 1 2 3 4 5 6 7 8 9 10
4;

4 → 500
x → 500
u = 4

int y = 14

14 → 700
y → 700

Symbol Table

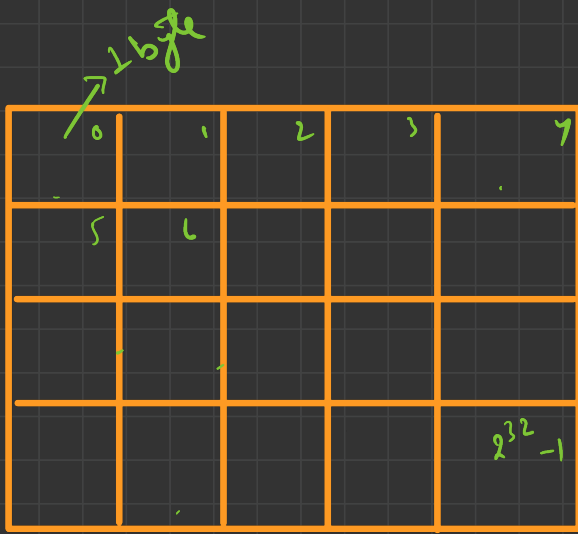
Ram →

variable	Address
x	500
y	700

1 byte	2	3	4	5
1				
	4			
			4	

500 → 32
32 bit
64 bit

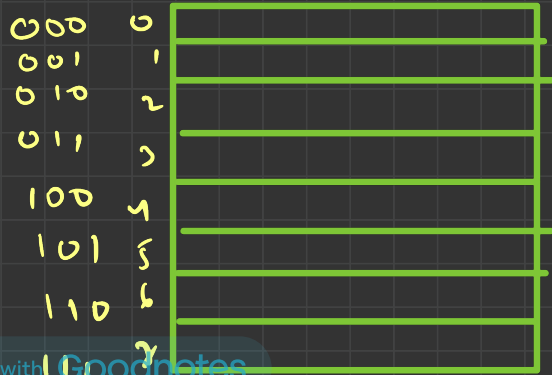
y = x



4GB $\Rightarrow 2^{32}$ bytes

RAM 32 bit

byte addressable



2^3 byte

111

8 byte Ram

8

8 GB Ram } 64 bit



2^{32} byte

16 GB
 2^{34} byte

34 bit



64 bit

10 bit

100 bit

2^{33} byte

33

8 bit

16 bit

32 bit → 33 bit

64 bit ←

128 bit

int a = 10

cout << a;

int

datatype

*ptr = &a;

* var_name

char z = 'a'

char *ptrch = &z;

size = 1

4GB →
8GB →

4Byte

8Byte

10

a

499

ptr

a

→ 499

a = address?

6
7

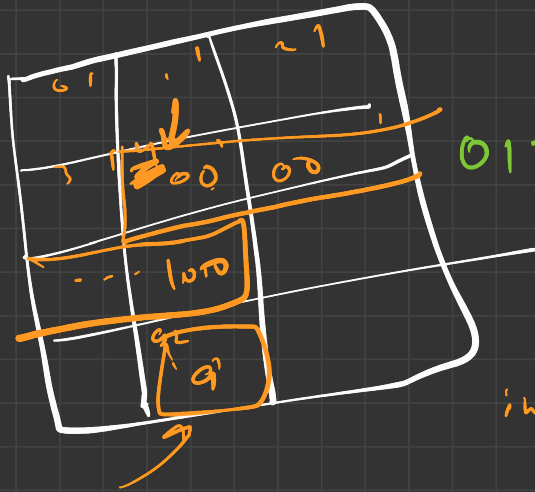
a

z

29

ptrch

0x61f108



012 --- a b --- f
4

499

binary

hex9

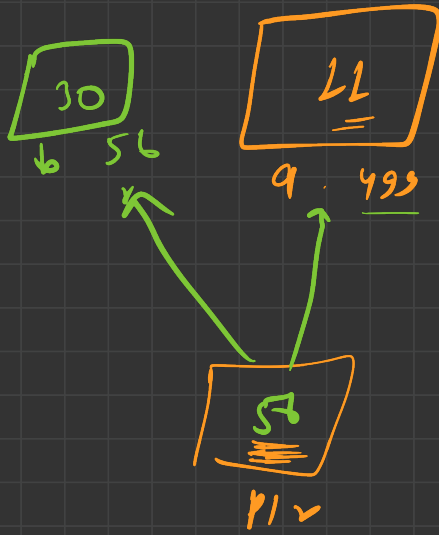
int a = 10 cout << a;

int *p = &a;

char z = 'a' → 52

cout << z

char *p1 = &z



```
int a = 10;
int *ptr = &a;
int b = 30
cout << ptr;
```

999

```
cout << *ptr
```

C++

```
cout << *ptr
```

```
ptr = &b
```

```
int *p;
```

```
int x = 44;
```

```
p = &x;
```

```
int c = 41;
```

```
p = &c
```

