

Arrays and Pointers - Part I

Comprehensive Course on C- Programming



CS & IT Engineering

C Programming
Arrays & Pointers-I



Lecture Number- 19

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Topics

to be covered



1 Arrays and Pointers Part-I

Array and address

① Address → Abs. address
→ Relative address

Abs. Address

A-101	A-102	A-103	A-104	A-105	A-106
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A-106, Krishna Nagar
Mathura-281004 (U.P)

knock

Array

purpose

relative address

② How to find address : & (address of operator)

int a = 10;

&a



2036 b

7:30 → c++
10:50 → special
class
(DADA)
8:00 - 9:40
10:15 → Yt

③ * (value at operator)

int a = 10;

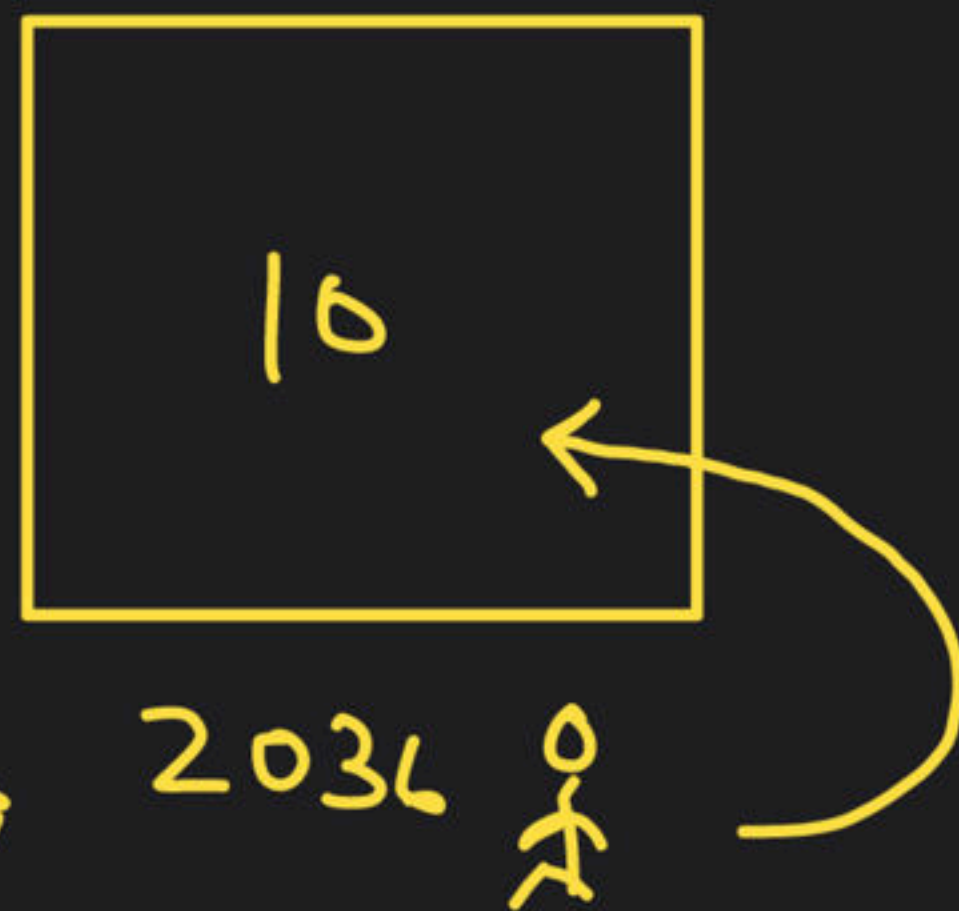
&a: Memory loc. 2036 &a

*(&a) \equiv value at (Mem loc. 2036)

= 10

value at (Memory location)

a



Ex $a \Rightarrow 10$

$\&a \Rightarrow \text{Mem. loc. } 2036$

$*(&a) \Rightarrow \text{value at (Mem. loc. } 2036)$

$\Rightarrow 10$

$*\&a = 10$
 $a = 10$

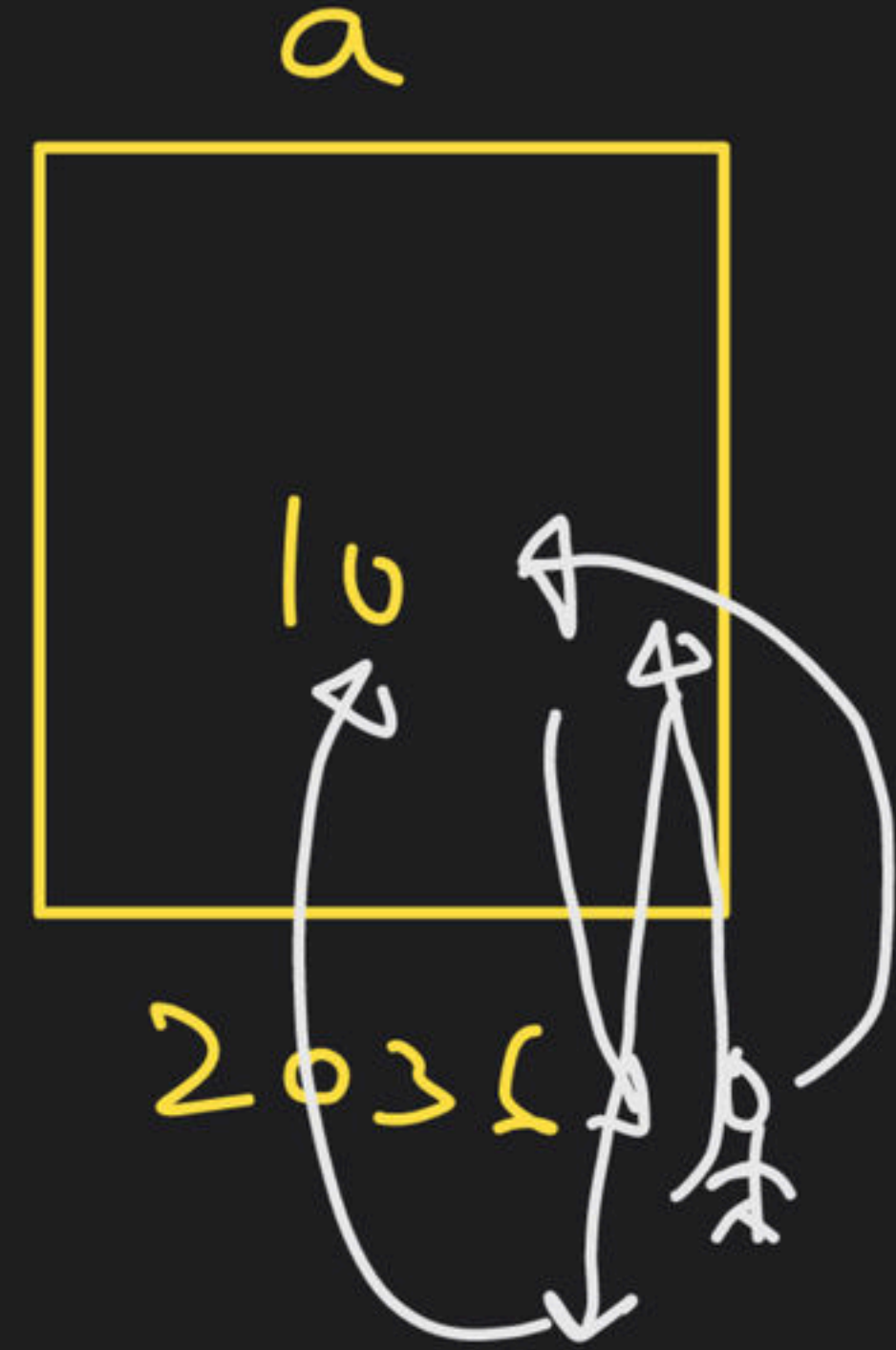
$*\&a = a$



~~$*\&a = a$~~


```
int a = 10;
```

```
printf("%d", *&*&a);
```



&&a

Why array

marks
avg of
3 stud

```
int m1, m2, m3;
```

```
float avg;
```

```
pr —
```

```
sf("%.1d %.1d %.1d", &m1, &m2, &m3)
```

```
avg = (
```

50 Students

Wish



→ Algo ke Parame

```
int m1, m2, m3, m4, m5, m6, m7, m8, m9, . . .
```

$sf("t.d.t.d.t.d, \dots", \&m1, \&m2, \dots)$

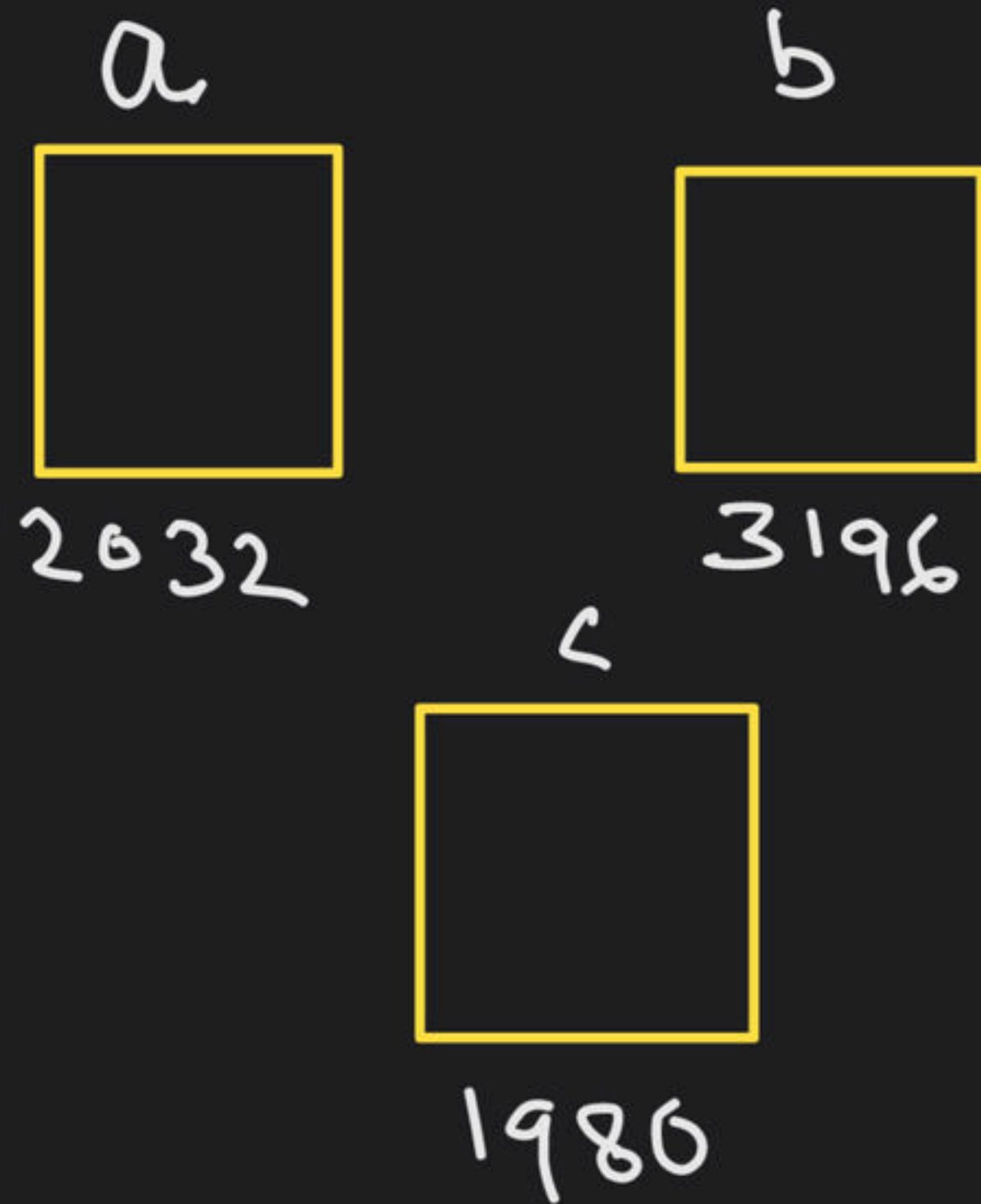
int a, b, c;
3 variables
 of type



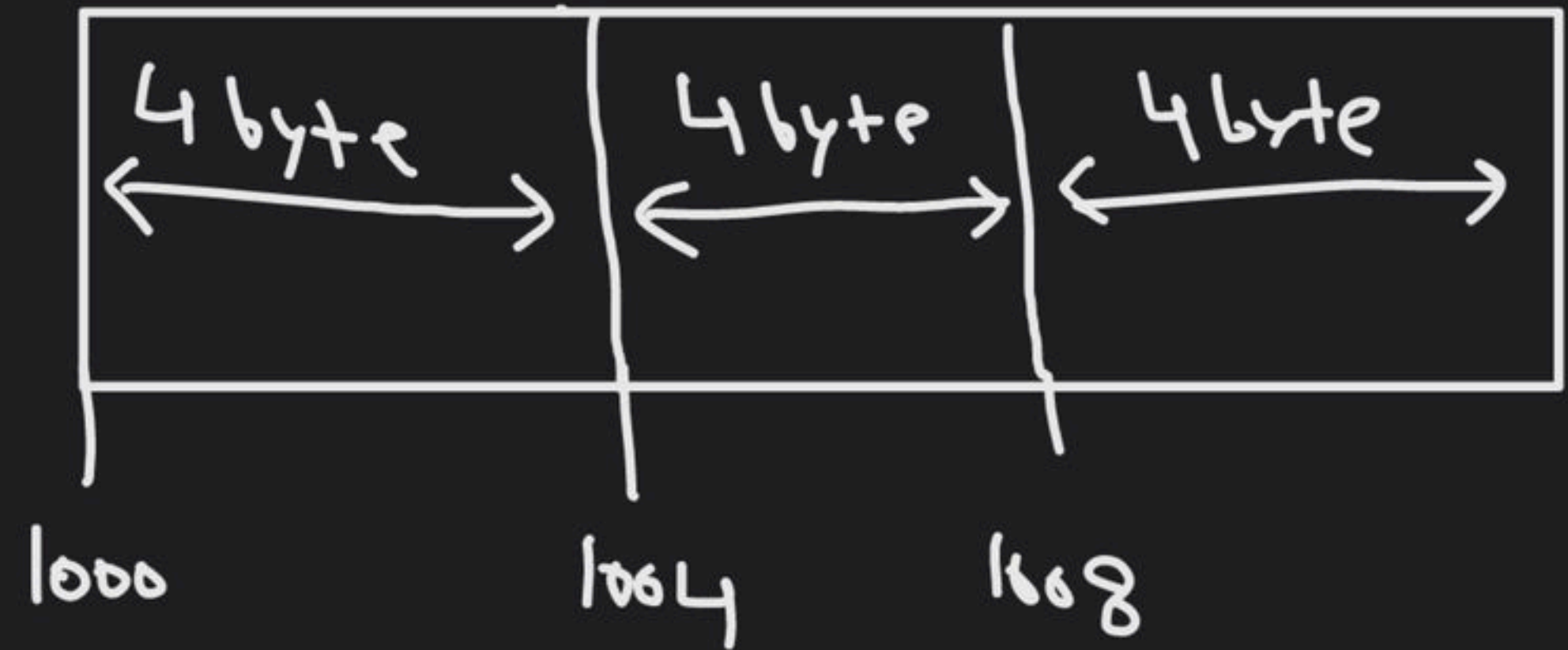
of type
 int a[3];
 a is a
 group of 3 elem.

a is a group of 3 variables of
 int type

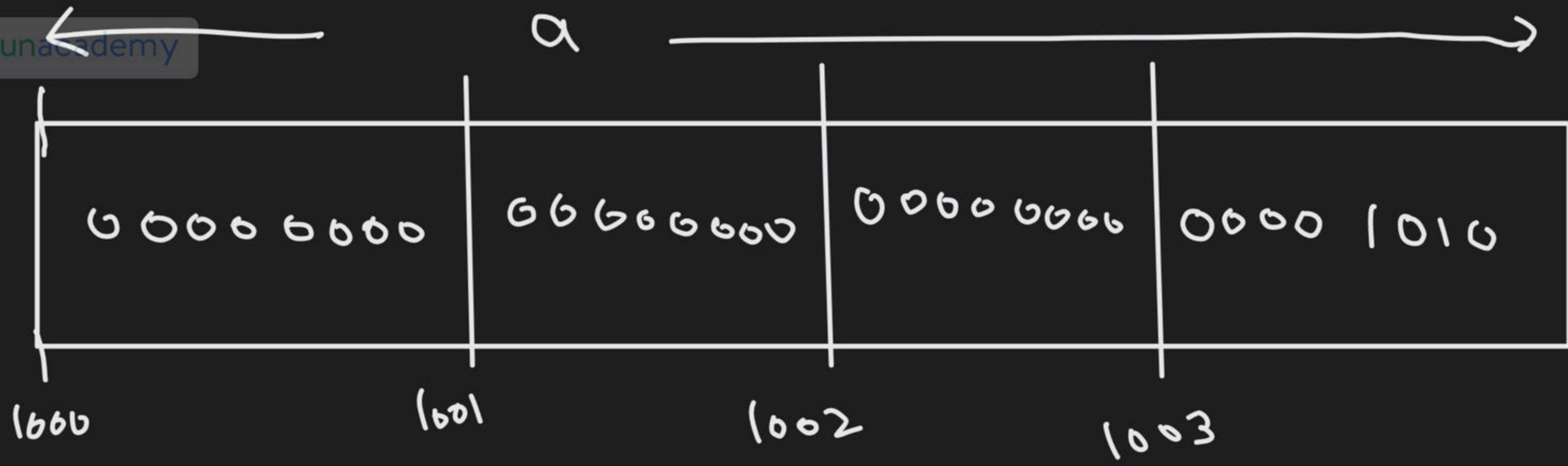
```
int a, b, c;
```



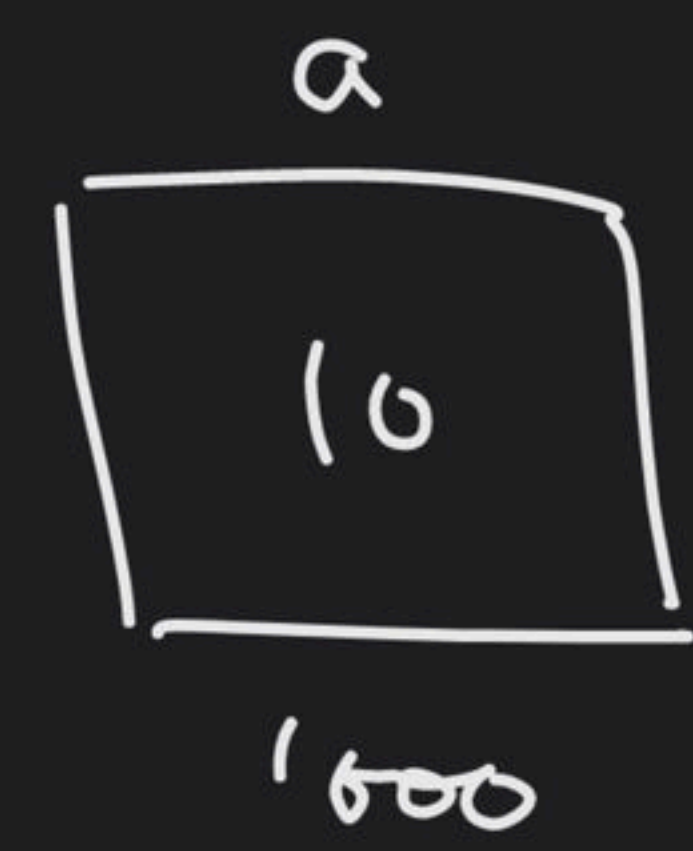
```
int a[3];
```



Elements are stored seq.
one after another.



int a = 10;



Rec +
Static var.

Sunday

→ Tower of Hanoi

→ 1.5 hrs

DPP → 5 PM ✓



THANK YOU!

Here's to a cracking journey ahead!