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Struct, like array but it separates ~~for~~ <sup>data</sup>

struct Student {

char name[50];

char major[50];

double gpa;

};

int main()

{"bad"} return

struct Student student1;

student1.gpa = 3.6;

XXX student1.name = "Mohamed";

strcpy(student1.name, "Mohamed");

printf("%f", student1.gpa);

return 0;

}

we should use <string.h>

strcpy( ), strlen( ), strcat( , )

strstr( , ) / strcmp( , )

الحوسبة المترافق

لورى بعنون

لورى بعنون

لورى بعنون

\*tolower( )

→ Convert + Lower Case Characters

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Struct indeed is a nothing but

members call your entity. for ex. 16.1.1

Declaration of Struct:

1] Struct Student { = x fm

FN) E) Chat name[50]; 2021/6/1  
G) X) G) double gpa; 90/100  
}

classical C ~~classical~~ pre

A int main() { }

Struct Student student;

(N) [E] — [S] (F)

ساخت دلار

2] type def Struct {

Student int x; float z; "alma" 11

W) int y; float w; "2021"

} Points c

Method of

int main()

Point Point;

النقطة

النقطة

When we need to Print the data

→ `printf("%d", Point1.X);`

When we need to get the data and store it

→ `scanf("%d", &P.age);`

→ `scanf("%[^\\n]", P.Kind);` store a full line

Hardcore It's about Put information and not to make the user to Put it.

we can add the data like

Point P1; declaration

P1 = {X, Y}; Initialization  
10) i.e.  $P1 = \{5, 10\}$

}

Home of north and a start

P = {"Milo", 2, "Cat", "fish"} Strings

{(String + int)}

: 9 + 9 = 18

How to Pass the struct to a function

I) function (to print the data)

Void Print-Pet (Pet x) {  
Struct "x"

printf ("%s", x.name); }  
Struct

(Struct Pet P)   
Struct "P" is first who  
is first struct

Struct خارجية في دالة

Struct داخلي name الاسم وهو دالة  
Struct "P" انت بعده

2] Create a func from to make Struct  
type of return / struct Pet

Pet initPet() {

\* Pet P;

P = { "milo" } العنوان

2.

return P;

return  
struct is  
equal

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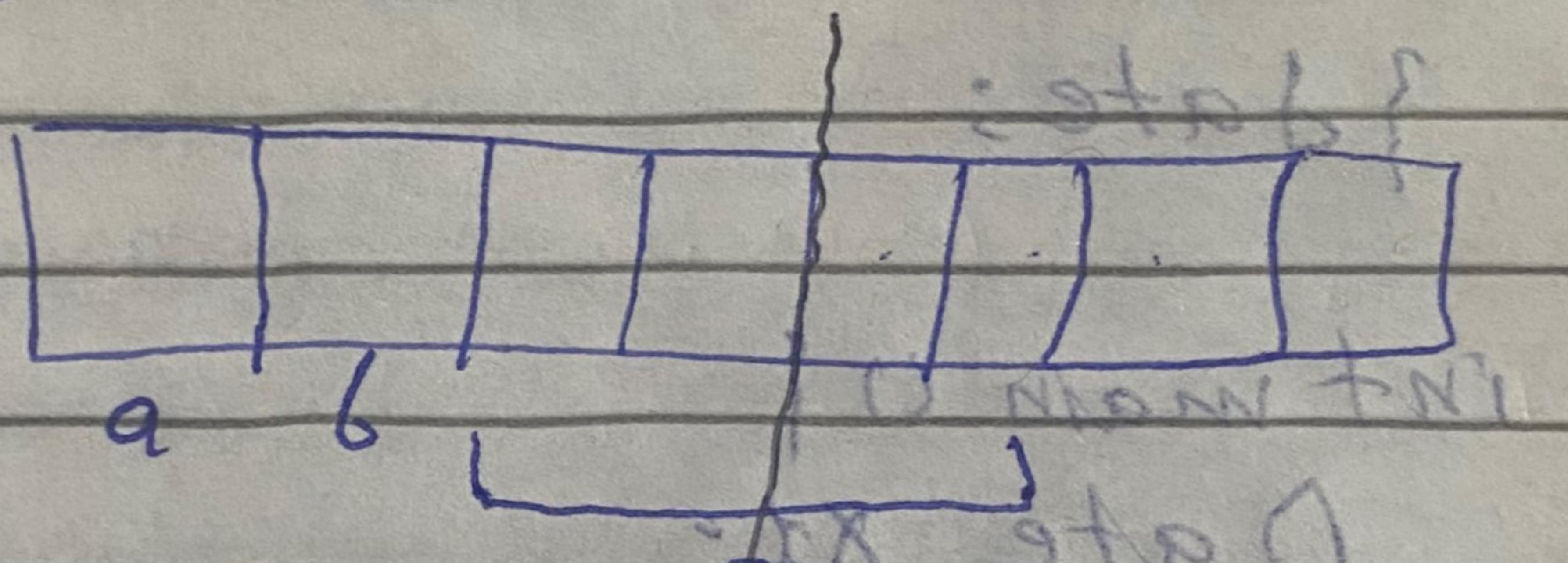
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## Memory Padding, تفاصيل ال 저장 المضاف

char a;      1      { التكملة المضافة

char b;      1      0

int c;      4      0



I think CPU cycle will go just a+b and let 8 bytes empty then the next cycle is checking c.

التكملة الحجم 8

workaround

{(N \* sizeof(m \* stop)) stop} can fix

لماذا N=8?

$$\text{stop} \cdot (N*) = \boxed{\text{Padding}}$$

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## Pointers to Struct

TypeDef Struct {

Char day[3];

} Date;

int main () {

Date X1;

Date \*P = &X1;

Pointer to Struct → Store <sup>an</sup> address

Return of Struct

in function

Void Compare (data \*m, data \*n) {

لعاوز اجيء القى

$$m \rightarrow \text{day} = (*m). \text{day}$$