

15TH
DAY

C++ COMPLETE BOOTCAMP

INSPIRE CLUB, MANIT BHOPAL

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BRINGS

C++

Complete
Bootcamp



Learn How To Apply Problem Solving Skills

Hello CPPBuddies

DAY-15

Welcome
To
C++ COMPLETE BOOTCAMP

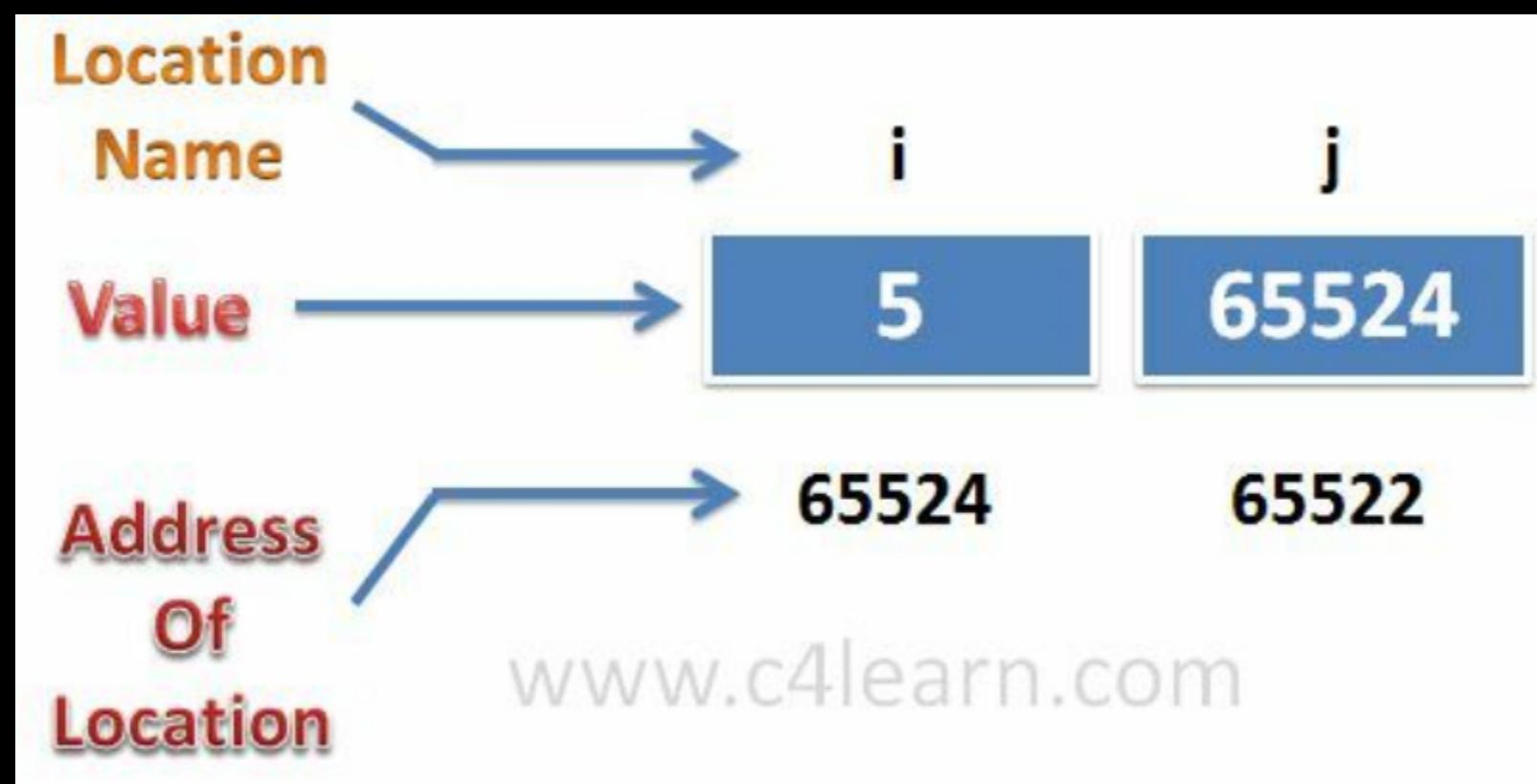
Your Guide To A Solid Foundation in C++

Let us begin

Pointers & Memory

A variable has **three** things:

1. Address
2. Content
3. Name



What is a pointer

In C++, a **pointer** refers to a **variable** that holds the address of another **variable**

Like regular variables, pointers have a **data type**

Pointers store only specific type of address

For example,

- A pointer of type integer can hold the address of a variable of type integer.
- A pointer of character type can hold the address of a variable of character type

We create pointers using
*
operator

pointer to int => int*

pointer to char => char*

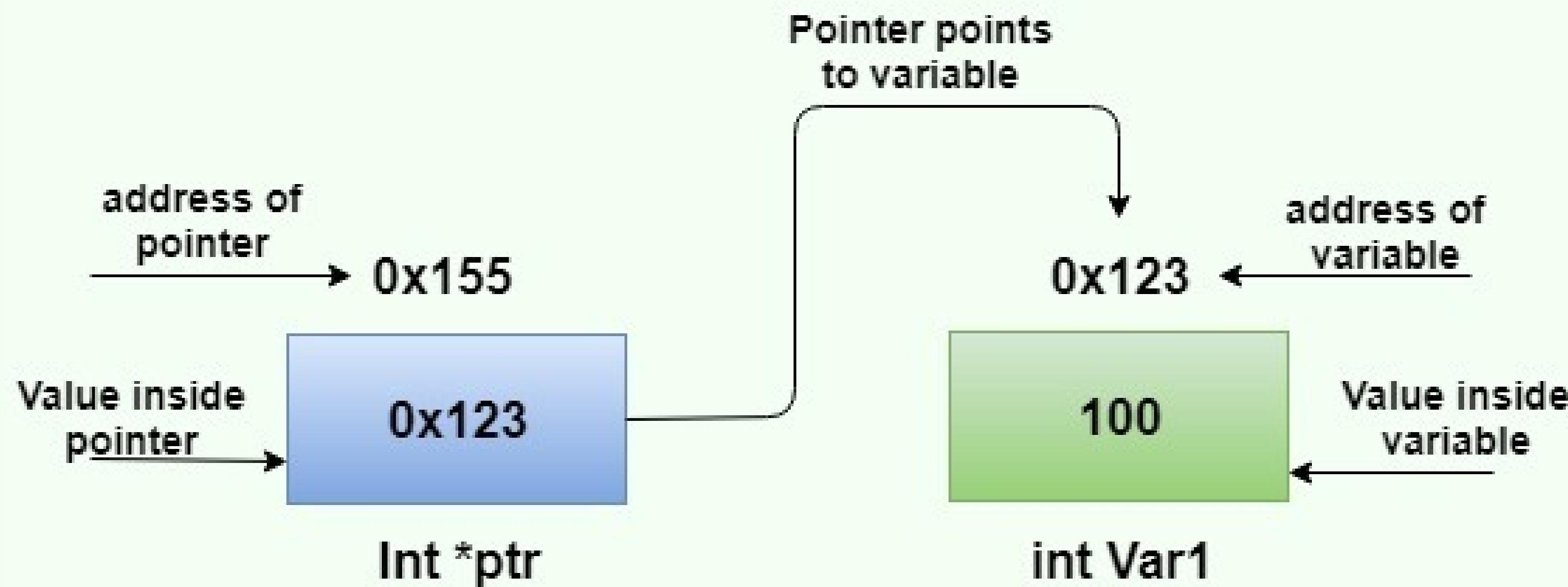
pointer to double => double*



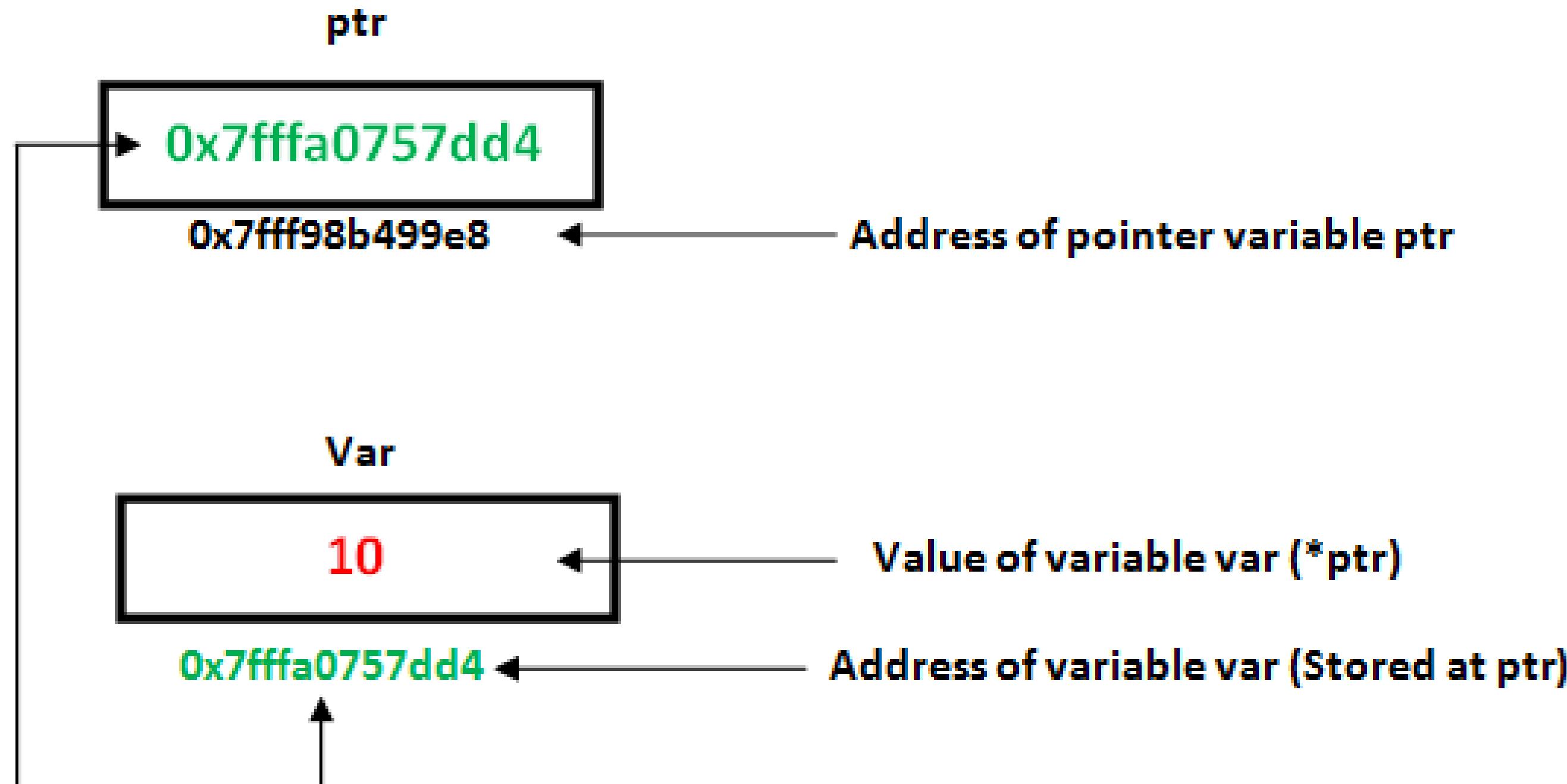
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Use of * and &

Pointers in C++



Pictorial View



How to use a pointer?

- Define a pointer variable
- Assigning the address of a variable to a pointer using unary operator (&) which returns the address of that variable.
- Accessing the value stored in the address using unary operator (*) which returns the value of the variable located at the address specified by its operand.

Dereferencing Pointers

The **indirection** operator (or **dereferencing** operator) (*****) operates on a **pointer**, and returns the **value** stored in the address kept in the pointer variable.

For example, if **pNumber** is an **int** pointer, ***pNumber** returns the **int** value "pointed to" by **pNumber** .

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DOUBLE POINTERS

It is a pointer to a pointer

Stores the address of a pointer

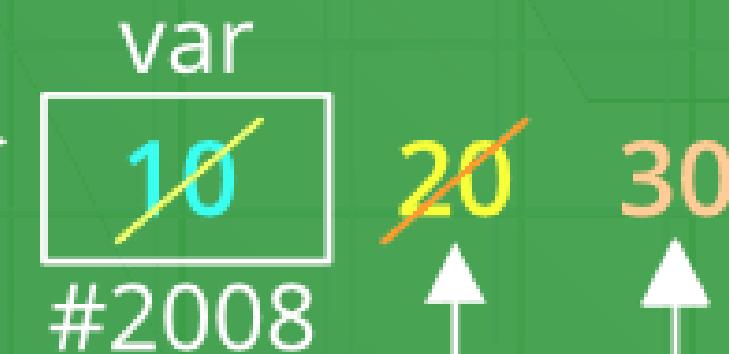
Declared using **

How pointer works in C

```
int var = 10;
```

```
int *ptr = &var;  
*ptr = 20;
```

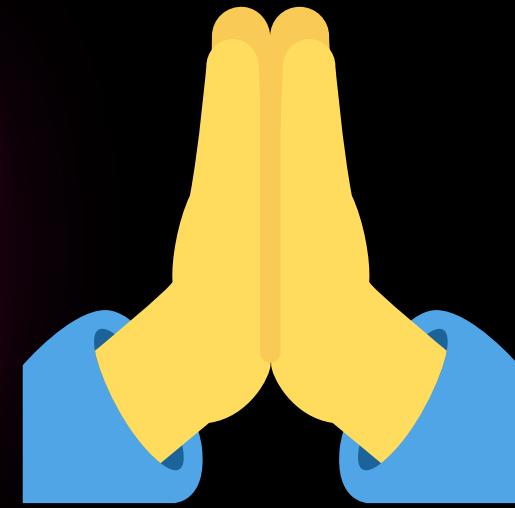
```
int **ptr = &ptr;  
**ptr = 30;
```



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THANK YOU



keep calm,
wear mask,
and
study hard



whoami
AKASH MAJI
Your Mentor