

Using Pointers with Structures



Philip Agaba

TEACHER

www.agabyte.com



A Pointer

Holds a memory location

Holds the address of another variable

Contains the address of a chunk of RAM



What's the
Point?

C is a mid-level language

Pointers grant access to RAM locations

Pointers examine and manipulate RAM



Pointer Rules

A Pointer's data type must match the referenced variable

- `char a;`
- `char *ptr;`

As with all C variables, a Pointer must be initialized before use



The Duality of the Pointer

Declare a Pointer with an asterisk

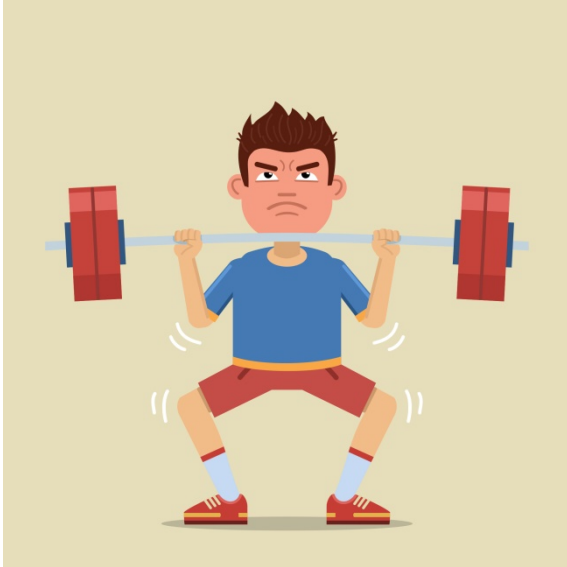
- `int *ptr`

Use the Pointer with or without the asterisk

- `ptr` — *address*
- `*ptr` — *value_at_address*



Module Challenge



Declare a variable

Initialize a Pointer to the variable

Output the address of the variable using

- the variable itself
- the Pointer

Module Summary



Now you can

- Create and initialize pointers
- Use pointers with arrays
- Use pointers with structures

