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C Memory Address

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Memory Address

When a variable is created in C, a memory address is assigned to the variable.

The memory address is the location of where the variable is stored on the computer.

When we assign a value to the variable, it is stored in this memory address.

To access it, use the reference operator (**&**), and the result will represent where the variable is stored:

Example

```c
int myAge = 43;
printf("%p", &myAge); // Outputs 0x7ffe5367e044
```

Try it Yourself »

Note: The memory address is in hexadecimal form (0x..). You probably won't get the same result in your program.

You should also note that `&myAge` is often called a "pointer". A pointer basically stores the memory address of a variable as its value. To print pointer values, we use the `%p` format specifier.

You will learn much more about pointers in the next chapter.

Why is it useful to know the memory address?

Pointers are important in C, because they give you the ability to manipulate the data in the computer's memory - **this can reduce the code and improve the performance**.

Pointers are one of the things that make C stand out from other programming languages, like Python and Java.

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