

A Structure Definition Can Be Used as a Type

A structure definition (without a semicolon)

- `struct { ... }`
- **is also a type.**
- Such a type has no name.

But it can be used to declare variables:

```
struct { ... } my_structure;
```

And it can be given a name:

```
typedef struct { ... } my_type_t;
```

Structure Definition and `typedef` can be Merged

You may sometimes see a named structure definition merged with a `typedef`:

```
typedef struct player_t {
    ...
} Player;
```

With the form above,

- `player_t*` cannot be used in the structure definition;
- instead, use `struct player_t*`.
- And the two cannot be split, of course.

Pitfall: Saving Typing at the Expense of Code Readability

Do not define types

- **to save a little typing**
- **at the expense of clear code.**

For example,

```
typedef int* Int;
```

What's the problem?

```
some_function (x, y);
```

Do x and y change? Maybe...*

*The pointers do not change, of course, but the data are the things to which the pointers point.

Enumerating Possibilities with `enum` is Also Useful

Another useful type: enumerations.

What's an enumeration?

1. a list of things
2. with some common feature
3. numbered consecutively.