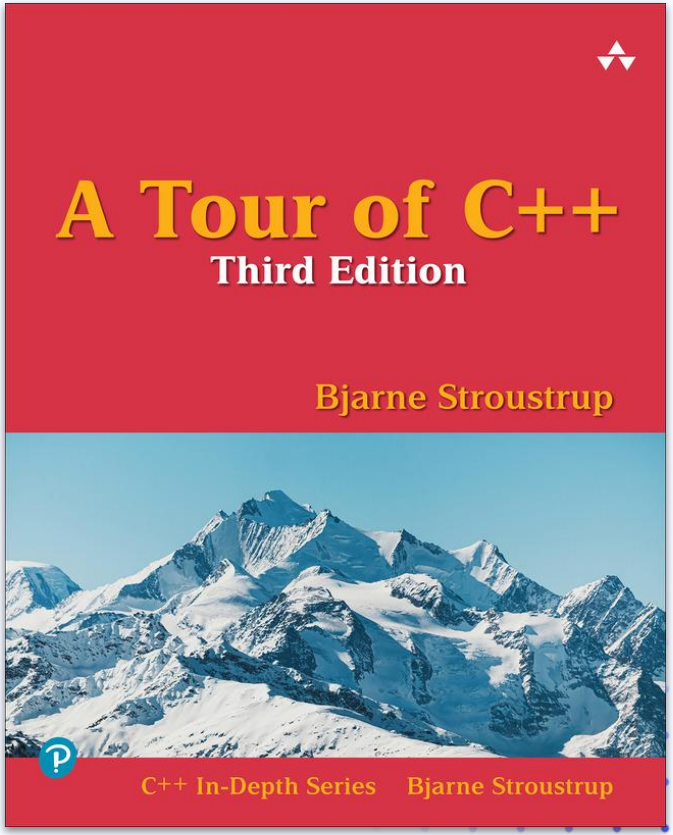
Classes

CSE 232 - Dr. Josh Nahum

Reading:

Section 2.3



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enum & union

“enums and unions are powerful types, but not essential enough to be taught in CSE 232.”

—Me

01

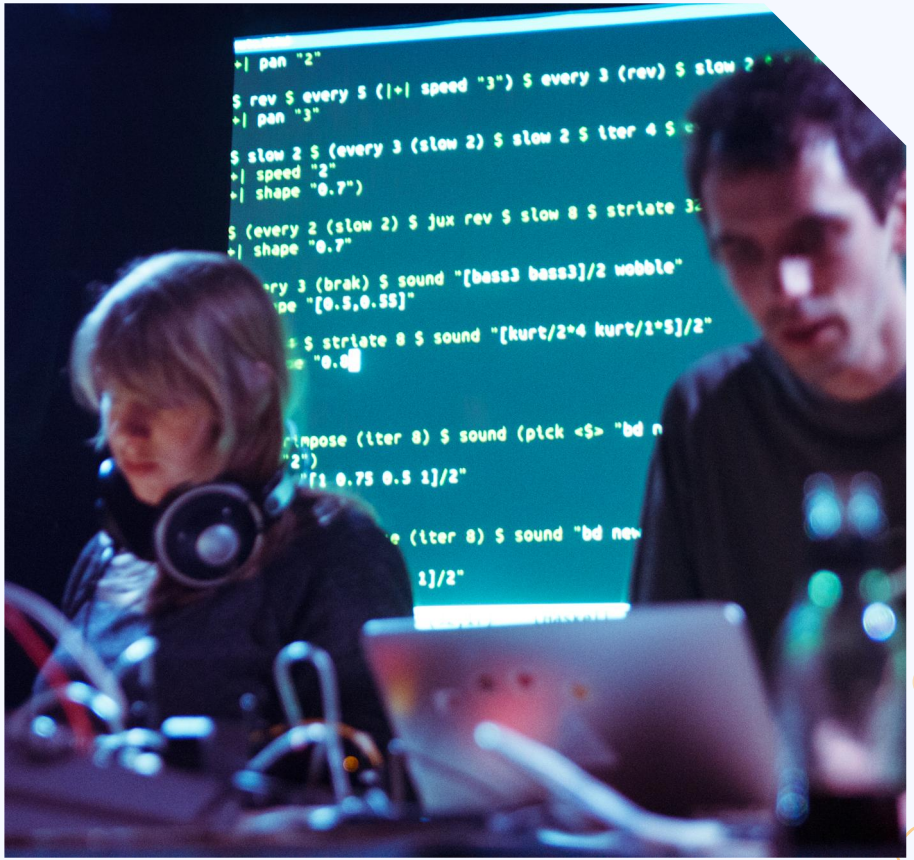
Return Type

Alternative Return Types

Most function return ordinary types (non-const copies of objects). Functions can return pointers, references and const objects, if needed.

Danger! Functions should not return references or pointers to variables that are local to the function. These local variables will fall out of scope and be deleted when the function call ends.

Live Coding Example



02

Constructors

Constructors

Constructor

A constructor is a member function with the same name as the class

No Return Type

Constructors never have a return type

Member initializer list

Optionally a list can be provided to initialize data members

Body

The body of the constructor can to other initialization work (if any)

Default Constructor

A default constructor is a constructor that can be called with no arguments.

Example:

```
class Vector {
public:
  Vector() {
    elem = nullptr;
    sz = 0;
  }
  // ...
};
```

Could also be written like this with a member initialization list:

```
class Vector {
public:
  Vector() :elem{nullptr}, sz{0} {}
  // ...
};
```

Attribution

Please ask questions via Piazza

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