Learning C++ Programming

The BUILD PROCESS

The Compilation Process

Preprocessor
- Takes your C++ source code and evaluates preprocessor directives.
- Produces a preprocessed source file (but usually is just part of compiler).

Compiler
- Takes preprocessed source code, compiles into object files.
- Checks that your code conforms to all syntax and semantic rules (e.g., no type errors).
- Accepts promises from the code about things defined in other source files.

Linker
- Takes object files, links them into an executable program.
- Ensures that all of the promises to the compiler are kept.

STRUCTURE OF A SIMPLE C++ NATIVE APPLICATION

Structure of a C++ program

```cpp
#include <iostream>        Use a library

int main()        Special function name that the
                  OS calls to run your program
{
    std::cout << "Hello, World!" << std::endl;
    return 0;              std::cout represents console output
                          << means send the next thing to it
}
```