

CS 103000

Prof. Madeline Blount

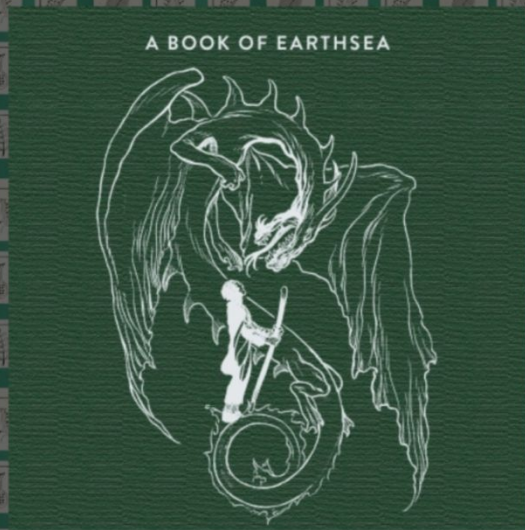
Week 1

inputs/outputs



*Dall-E 2: cats learning C++ in the forest on '90's technology*





“For magic consists in this,  
the true naming of a thing.”

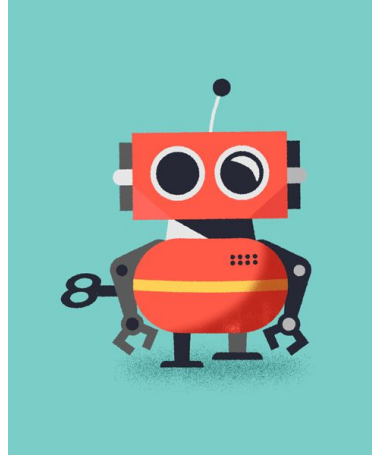
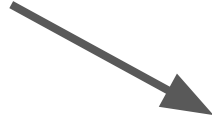
— Ursula K. LeGuin, *A Wizard of Earthsea*



source code (C++)

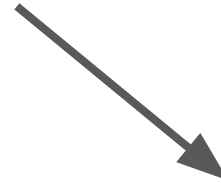
```
#include <iostream>

int main() {
    std::cout << "Hello, World";
    return 0;
}
```



PREPROCESSOR  
COMPILER  
LINKER

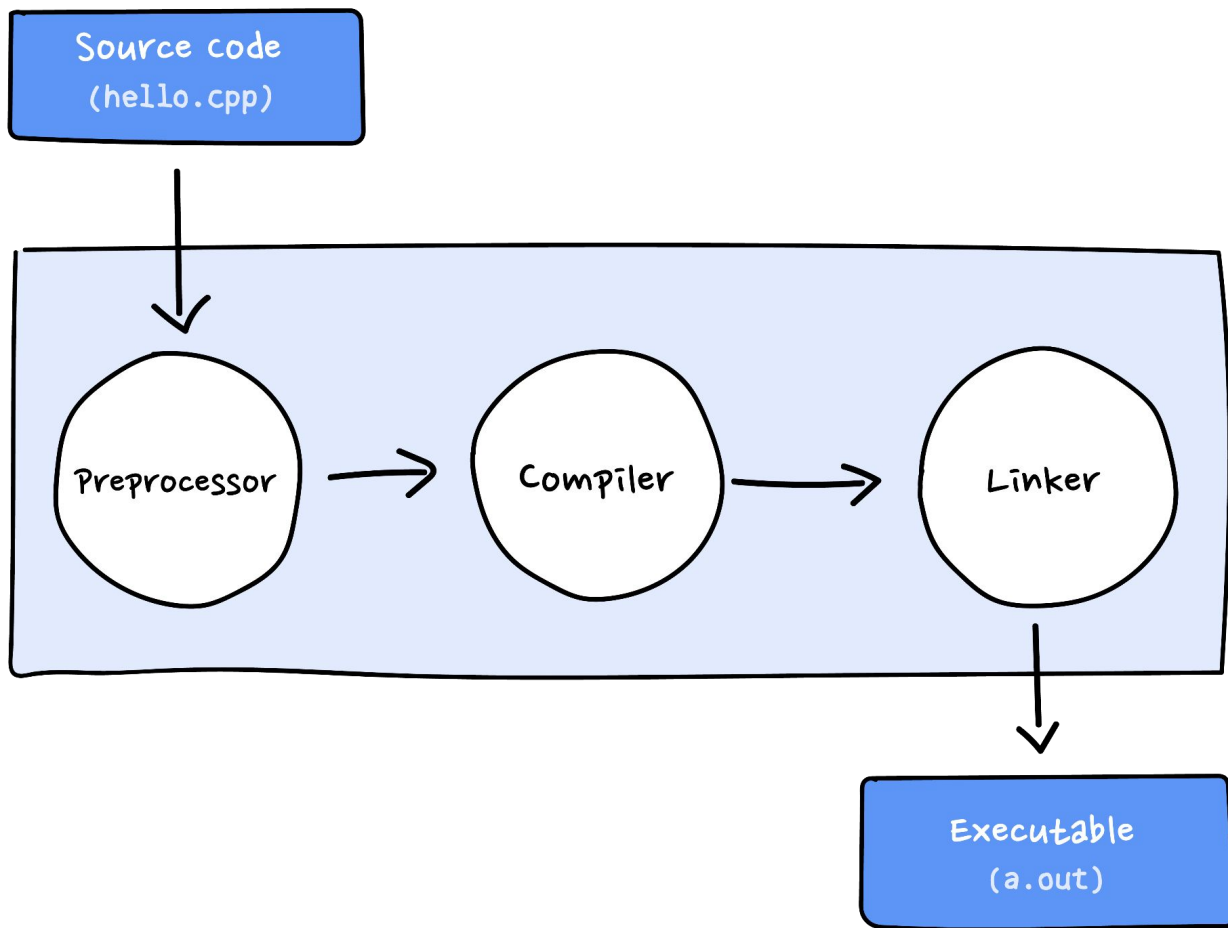
- `#include ...`
- `line by line`
- `assembly language`



machine code

```
10100011
10100101
10100101
10011111
```

binary



THE #1 PROGRAMMER EXCUSE  
FOR LEGITIMATELY SLACKING OFF:

"MY CODE'S COMPILING."



## STREAMS :

← "PUT TO COMPUTER" - INSERTION



```
cout << "onscreen!" <<  
endl;
```



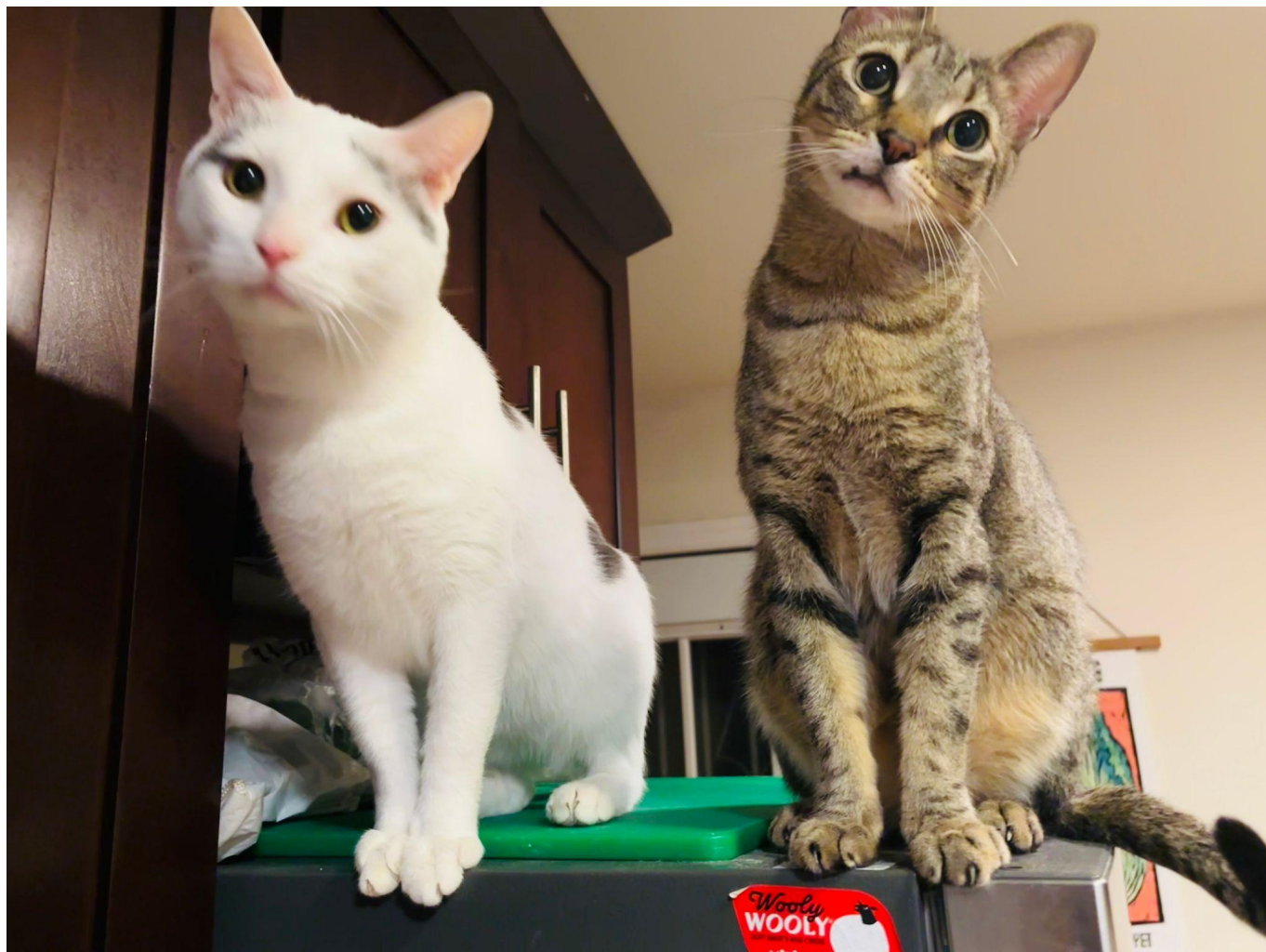
```
cin >> variableName;
```



"GET FROM COMPUTER"  
EXTRACTION



cout = "character output"    cin = "character input"








write me a program in c++ that says "hello world"

Classic 😊 Here you go—simple, clean, and correct C++:

cpp

 Copy code

```
#include <iostream>

int main() {
    std::cout << "Hello, world!" << std::endl;
    return 0;
}
```

If you want to compile and run it from the terminal:

bash

 Copy code

```
g++ hello.cpp -o hello
./hello
```

Want a slightly modern C++ version, or is this for a class / specific compiler?



Hack the System!





