C

Friday!

CS 2130: Computer Systems and Organization 1

October 21, 2022

Announcements

- Quiz 7 opens tonight, submit Monday by 8am
- Homework 6 due Monday at 11pm (binary bomb phases)

Simple C Example

```c
int main() {
    return 0;
}
```

The **main** function

- Start running the **main()** function
- **main** must return an integer - **exit code**
    - **0** = everything went okay
    - Anything else = something went wrong
- There *should* be arguments to main

$$\begin{pmatrix} \underline{a} & \&\& b \end{pmatrix}$$

$$\begin{pmatrix} a & || & b \end{pmatrix}$$

Example

Data Types in C

Integer data types

- char   8 bits
- short   16 bits
- int   32 bits
- long   64 bits
- long long   64 bits

Each has 2 versions: *signed* and *unsigned*

Data Types in C

Floating point

- float
- double

Data Types in C

Data Types in C

Pointers - how C uses addresses!

Data Types in C

Pointers - how C uses addresses!

- Hold the address of a position in memory
- Need to know the kind of information stored at that location