CS 326: Operating Systems

libc

Lecture 4

The C Library (libc)

- You are probably somewhat familiar with the C standard library at this point
  - `Your program -> C Library -> System Calls -> Kernel`

- In this class, we'll use our own `libc` implementation

- Let's look at some relevant files:
  - `user/ulib.c`
  - `user/umalloc.c`

Why do we care?

- Applications need a stable interface / API

- On Linux, it's safe to use system calls directly
    - Guaranteed stable
    - See: golang

- On Windows, macOS, *BSD, the C library represents the stable interface for applications

- What are the pros and cons of these two approaches?

Hint: Creating a shell alias

- Typing `cd /raid/$(whoami)/os-*` every time you log into gojira can be quite annoying, right?

- Let's create a shortcut (shell alias) for ourselves.
  - There's some instructions on the schedule page that go into detail

Lab 2

- If you're already done with Lab 1, Lab 2 is now available.
  - Don't worry if you're not done with Lab 1 yet!
- In Lab 2, we'll add some new functionality to our C library that will come in handy later in class.