# Wednesday, September 11

linuxlab configuration

Project 0

- Review of GeekOS structure: syscall.c, vfs.c, pipe.c
- Sys_Read pseudocode

# linuxlab configuration (Linux, Mac)

Get class account from grades.cs.umd.edu. After that, use ssh with X11 forwarding to connect.

Linux: `ssh -l username -X linuxlab.cs.umd.edu`

Mac: install Xquartz from http://xquartz.macosforge.org/landing/, then same as Linux

# linuxlab configuration (Windows)

Windows: use a client such as putty to ssh to linuxlab.cs.umd.edu; check "Enable X11 forwarding." You may need to install an X server such as Cygwin/X. There is a docx with images of the settings you'll need.

Links:

- http://www.chiark.greenend.org.uk/~sgtatham/putty/
- http://x.cygwin.com/
- http://www.cs.umd.edu/~jonfd/f13-412/puttySettings.docx

# Project 0

What's a pipe?

System calls, data structures for arguments

Data structures for file management

Illustration: Sys_Read pseudocode

VFS layer (vfs.c)

# GeekOS data structures

You will use structures from these include files to hook your pipe into the OS.

vfs.h

- struct File, struct File_Ops

user.h

- struct User_Context

kthread.h

- struct Kernel_Thread
  get a reference from g_currentThread

# GeekOS files

syscall.c
- Entry point for system calls
- Arguments in `struct Interrupt_State`

pipe.c
- Where you will do much of the work for Project 0

vfs.c
- Connects Read/Write/Close to Pipe_Read/ Pipe_Write/Pipe_Close
- For Sys_Pipe, call Pipe_Create directly