CMSC412 Discussion

1/30/2012
Overview

- Introduction
- Running project remotely
  - Printrun
  - Debugging
- Project Overview
- Tips/ Warnings
Introduction

- Johnny Wu
  - 1st year Master's
  - Took 412 two years ago
- Office Hours: (in linuxlab)
  - Monday and Wednesday: 2-3pm
  - Tuesday and Thursday: 3:20 – 4:20pm
- Also Piazza and email
- Discussions
  - Primarily for the projects, usually short
Running GeekOS

- Ssh <username>@linuxlab.csic.umd.edu
- Svn co <project svn> --username “...”
- Cd network/build
- Make run
  - Creates a diskd.img and executes: qemu <some options> diskd.img
  - Need X11 forwarding enabled
printrun

- Enable printrun by going to Makefile.linux:
  - Uncomment wget lines, correct indentation, uncomment BIOSLOCATION
  - Make printrun

- Do stuff

- On termination can see output
- (will lose screen though, so need to use second terminal to kill first one)
  - Pkill -9 -u <username> qemu
gdb

- Open 2 terminals
- Make dbgrun in one
- Then make dbg in other

- Do gdb stuff
Project overview

- System calls (syscalls)
  - Use syscalls to give user program access to kernel-side operations
  - Call wrapper function on user-side (e.g. Print)
  - Which raises interrupt handled in trap.c
  - Which calls appropriate handler (syscall.c)
- Book-keeping
  - User.h, kthread.h
Tips / Warnings

• If working in linuxlab, set firefox cache to 0
  • Otherwise will quickly run out of disk space and be locked out of terminal

• On linuxlab, only have 1 built version of project at most (otherwise above)

• EXPECT TO READ/MODIFY A LOT OF CODE

• EXPECT POORLY WRITTEN SPECS

• START PROJECT EARLY (to get help early)