CIS410/510, System & Network Administration Lab (SNAiL)

Spring 2015
CRN: 37341/37342
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Mon 2-4:40, DES260
Pre-req: cis330

http://www.cs.uoregon.edu/classes/15S/cis410snal/
Course Goals

• Learning a set of essential skills for system and network administration
• These skills are considered necessary for CS graduates who enter a job market or graduate program
• These needs motivated the offering of this new course.
• Emphasis is on hands-on, problem solving skills
Topics

• A mix of system and network related topics
  – Tentative list of topics is posted on class web page.
• System administration
  – Installing/configuring VMs, Linux, pkg management
  – File systems and storage: partitioning, mounting, RAID
  – Sys admin tools: boot process, backup, ...
  – Shell scripting
  – Kernel compiling
• Network administration
  – Host network configuration
  – Network applications
  – Network troubleshooting
• Note: specific topics may change
Format

• Class consists of a set of exercises & a project
• For each set of exercises, we provide high level instructions & a short lecture to present the context.
• Each week, students (individually or team of two)
  – Perform a set of exercises related to a topic, and
  – Capture their results/information in a report
• The report should reflect your own work!
• You can finish the exercise during the same session or after the class on your own
• Reports are due on the Fri of the same week before midnight. 10%/day penalty for late reports.
Class Project

• In addition to weekly exercises, you (individually or a group of two) are expected to work on a project that connect a few pieces into a more involved system
  – Project ideas and template will be provided
• The project is meant to give you a deeper insight in integrating multiple pieces into a solution
• Details of your project (plan of work and deliverables) should be presented in a SHORT proposal (due week 5)
• Project report/demo/presentation is due at the end of the term
Main Components

• Weekly Reports  60%
• Participation    10%
• Term Project    30%

• The default grading option is “graded”
• You can opt out to P/N
  – Passing the class requires equivalent of B-
Hardware

• You have the option of performing the exercises on
  – your own laptop, or
  – a Raspberry Pi (credit-card sized computer)

• We will provide the Pi
  – Trying to sort out the details for access/lending/etc
SNAiL vs CIS399

- The syllabus of two courses have some overlap
- cis399 only offered during summer terms
- Undergrads can only get credit for one of these classes
• We do not use/refer to any text book
  – Tons of available resources/info online
• But here are some useful textbooks to consider
Final Thoughts

• We might be making some adjustments throughout the term to make this course more useful for students.

• A key goal of this class is to practice “problem solving” skills as it happens at your job or lab.
  • You can use online resources (blogs, wikis, ...)
  • Groups can discuss their problems/solutions with each other, but can NOT share reports.

• This is going to be a fun but not necessarily an easy class.

• We would like to limit class size, and thus may end up selecting a subset of qualified/interested students.
  • Senior may have a higher priority.
Immediate Tasks

• Write your information in the sign up sheet
  – Name, ID, year, cis330 passed?, cis415 passed, cis432 passed?
  – Whether you are using your laptop or not?

• We will finalize and announce the class list by Tue/Wed and announce it

• We are planning to have a make up session on Thu afternoon (2-5), April 2, to stay in schedule

• Questions!