

Lab 0 Objectives

- Intro to Labs
- Intro to Operating Systems
- Start Lab #0
 - UNIX/Linux intro, worksheet
 - Piazza (Forum for Q&A)
 - Sakai (Forum for “Broader Issues”)
 - Create Web page
 - Use jEdit (Text Editor)

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Intro to Labs

- Introduce Student Assistants
 - Azmain Amin '17
 - Perry O'Connor '17
 - Shane Siebken '17
 - Sarah Troise '19
- 3 hours to get started on labs
 - Often will need to finish lab after lab period
 - Lab assignments are the majority of your homework
 - Use this lab (P405), preferably, or P413

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What Today Is and Is Not

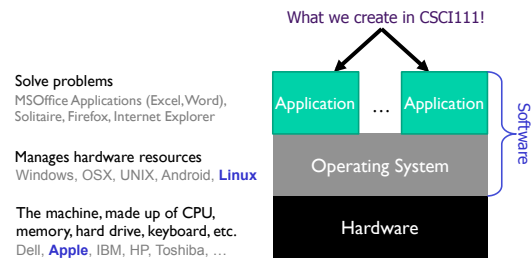
- Aren't ready for programming
- Set up for the rest of semester
- Practice communicating with computer
 - When we talk to computer, we need to be *precise*
 - More on that tomorrow
- Learn Linux

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Basic Computer Architecture



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Operating Systems

- Manage hardware resources
- Three popular operating system variations:

Mac	Windows	UNIX
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 - Compare in terms of cost, popularity, available software, security
- Learn Linux (a UNIX variation) in this class
 - “PC” for Windows is a misnomer because all of these OSs are for “personal computers”.
 - Macs are built on UNIX → can use UNIX commands

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P405 Machines

- Run both Linux and OSX
 - If need to switch, restart. By default → Linux
- Computer should be in Linux
 - If not, tell someone or move to another computer
- P413: Linux-only

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Intro to UNIX Handout

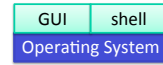
- A lot of words
 - Not CS-difficult
 - Tests your ability to follow directions
- Not that difficult
- Introduces terminology and techniques that will be second nature to you in a few weeks
- Periodically check with your neighbor
 - If answers aren't similar, see TA or me
- Suggestion: **keep notes**

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Intro to UNIX



- Execute operations by typing commands in shell or using GUIs (Graphical User Interfaces)
- We will use terminals much of the time
- Today: learn essential UNIX commands
- Why?
 - Faster to use keyboard than mouse
 - Easier to automate

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UNIX is a Bad Parent

- Doesn't tell you when you've done something right
- Only tells you when you've done something wrong

```
sprenkle@spartacus Desktop$ mv lab00.ppt.pdf lab00.pdf
sprenkle@spartacus Desktop$
```

Since you didn't get an error message,
that's correct!

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Intro to UNIX: File Structure

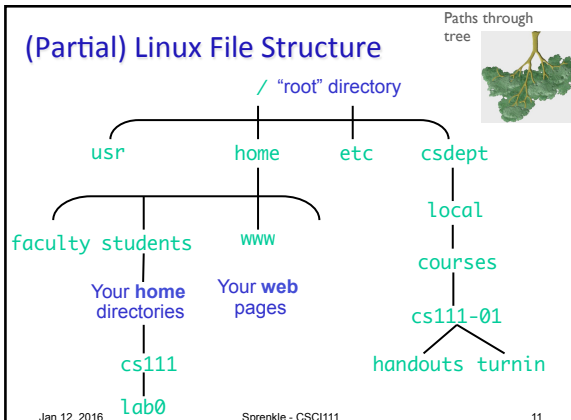
- Organize our files
- Hierarchy of *directories* or "folders"

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(Partial) Linux File Structure

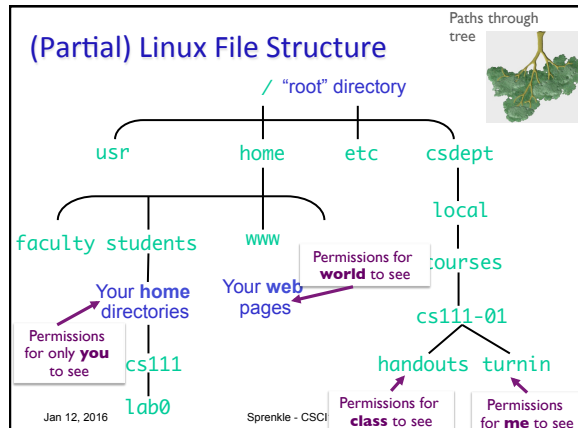


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(Partial) Linux File Structure



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Intro to UNIX: Essential Commands

• Manipulating Files

Command	What it does
ls	list the files, directories in a directory
mkdir	make a d irectory
cp	copy a file/directory
rm	remove (delete) a file/directory

• Navigating Directories

pwd	print w orking d irectory
cd	change d irectory

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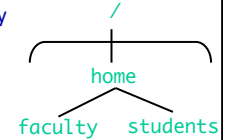
Intro to UNIX: Shortcuts

Shortcut	Meaning
.	Current Directory
..	Parent Directory

➤ Often used with **cp**, **mv**, **cd** commands

• **cd** or **cd ~**

➤ Change to *your* HOME directory

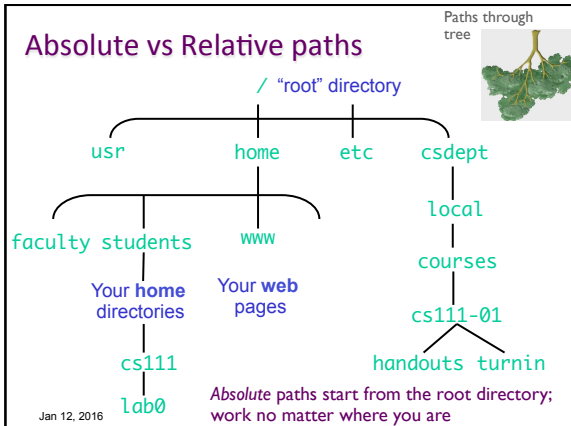


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Absolute vs Relative paths



Creating a Web Page

- Practical application of UNIX command skills
- Learning from following examples and adapting
- Learn what's "behind the curtain"

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Lab 0 Checklist

- Linux Worksheet
- Go to Browser, Lab 0 Page
 - Piazza access
 - Sakai access
 - Your own web page
- Pledge **all** work you submit

Due Friday before class

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