



Computer Architecture

CS-211

Spring 2017 | Recitation
Abu Shoeb

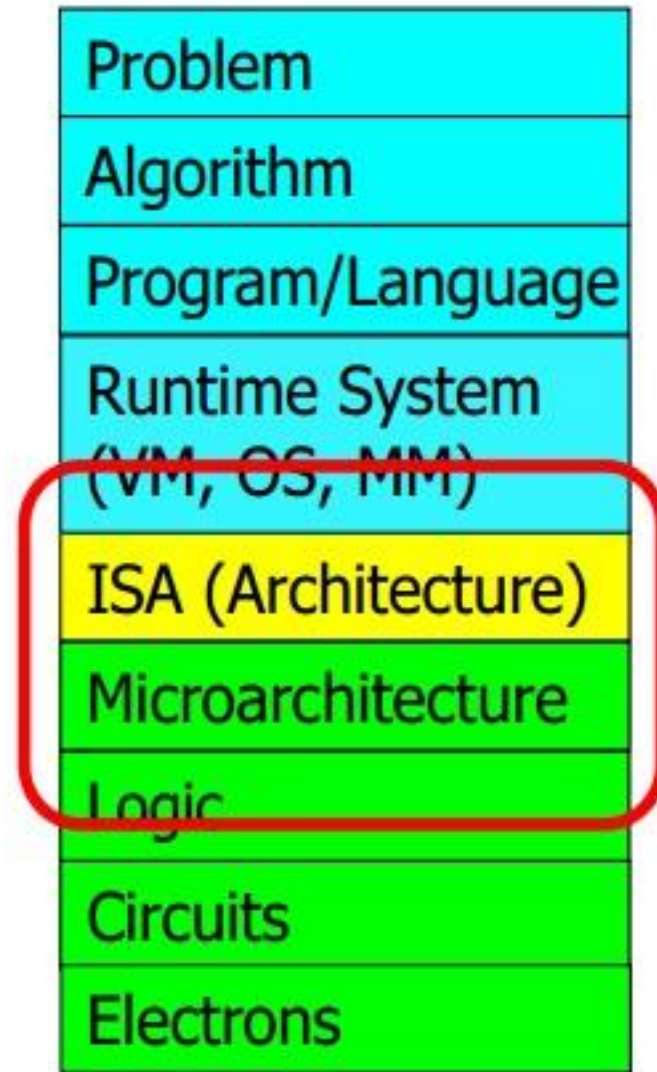
Hello!

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 - Hours: Tuesdays 12pm – 1pm
- Use **Sakai Forums** for any queries. However, if you need to send an email to your TA then please use **CS-211** as prefix in your **Email Subject!**

Agenda

- ▣ Introduction
- ▣ How to use iLab machines
- ▣ Useful Linux Commands
- ▣ How to write and compile C programs

Introduction



Connect to iLab servers

- ▣ Follow the link to open your account now
<http://www.cs.rutgers.edu/resources/systems/ilab/>
- ▣ To get connected with iLab machines
 - ▣ Use **X2GO** client for GUI
 - ▣ Windows : download and install
 - ▣ Linux : `sudo apt-get install x2goclient`
 - ▣ Or use Terminal/Command Line application
 - ▣ `ssh netid@address`
 - ▣ eg. **`ssh shoeb@builder.cs.rutgers.edu`**
- ▣ You can also use Putty/WinSCP on Windows

Write/Edit Your Code

- ▣ Edit your code using

- ▣ Graphical User Interface

- ▣ Gedit

- ▣ Notepad++(Windows)

- ▣ Geany(Linux)

- ▣ Command Line

- ▣ Gedit/Nano/Vim

- ▣ Vim Commands

- ▣ Type vim filename (eg. vim welcome.c)

- ▣ Press “a” to append “i” to insert text

- ▣ Press ESC for command

- ▣ Type :q! (quit without saving)

- ▣ Type :wq (write and quit)

Basic Linux Commands 1

Check this: <http://linuxcommand.org/index.php>

- ssh: login to any machines remotely
- pwd: show current location
- cd: change directory (eg. \$cd Documents, or \$ cd ..)
- ls: list all contents (<http://www.rapidtables.com/code/linux/ls.htm>)
- locate: show location of a file (eg. \$locate test.txt)
- Grep: search texts in files (<http://www.cyberciti.biz/faq/howto-use-grep-command-in-linux-unix/>)
- --version: show version (eg. \$ java -version)
- cat: print contents on screen (ex. \$ cat test.txt)
- touch: create a file (eg. \$ touch test.txt)
- nano, vim: editor (eg. \$ nano test.txt)

Basic Linux Commands 2

- ▣ cp: copy file (eg. \$ **cp source.txt destination.txt**)
- ▣ mkdir: make directory (eg. \$ **mkdir myfolder**)
- ▣ rm: remove file (eg. \$ **rm test.txt**)
- ▣ mv: rename file (eg. \$ **mv oldname.txt newname.txt**)

- ▣ scp: transfer file from local to server machine and vice versa (**scp source destination**)
 - ▣ Local computer to iLab
 - ▣ \$ **scp -r local-folder/ shoeb@null.cs.rutgers.edu:~/**
 - ▣ iLab to Local (execute command from local machine)
 - ▣ \$ **scp -r shoeb@null.cs.rutgers.edu:~/remote-folder/ /home/shoeb/**

Compile and Run C Code

- ▣ Create a .c file (eg. `$ touch hello.c`)
- ▣ Open the file with gedit/vim/nano
- ▣ Compile your code
 - ▣ `$ gcc -Wall -Werror -fsanitize=address hello.c -o hello.out`
- ▣ Run your code
 - ▣ `$./hello.out`

Assignment For This Recitation!

Nothing :-)