



Computer Architecture

CS-211

Spring 2017 | Recitation
Abu Shoeb

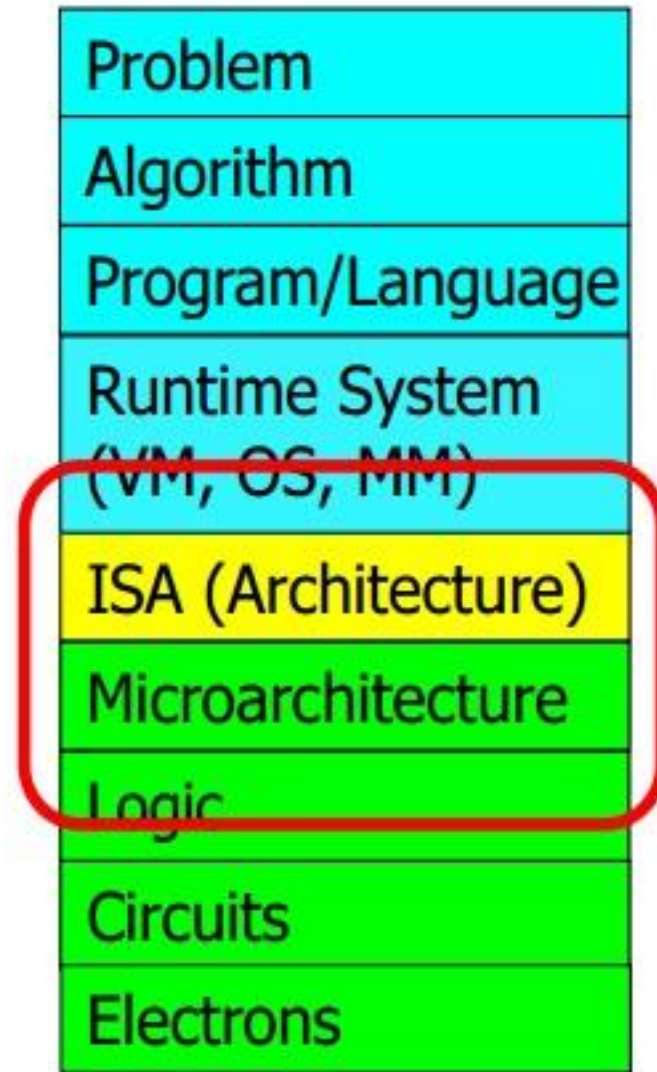
Hello!

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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 :-)