

# Computer accounts: HW 1(i)

## Computer accounts:

We are going to work on

- ✓ Hummingbird – `hb.ucsc.edu`
- ✓ Grape – `grape.soe.ucsc.edu`

Your UCSC accounts should let you access these machines already.

If not, you may need an SOE account to access grape if you don't already have one. If so, go here: <https://accounts.soe.ucsc.edu/accounts/register>

Put me as your sponsor and I will approve. Say it is for class AM250.

(Don't do this unless it turns out to be necessary!)

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## HOMEWORK 1 (i):

Check that you can log in to these two machines!

You already need some skills to do this!:

1. Access to a computer (laptop, computer lab, ...)
2. Access to `ssh` client on that computer
  - ✓ Terminal and command line “ssh” on Mac
  - ✓ PuTTY on Windows
3. Knowledge of use of `ssh` (`ssh -Y <username>@<machinename>`)
4. A little bit of Unix/Linux to move around if you want ...
5. Type “`whoami`” and screenshot the window!

# HW 1 (ii)

Top 500: Pick a computer and describe it. Specify at least

- Name
- Location
- No. of nodes, No. of processors per node => Total no. of processors
- Clock speed of chips
- Flops/processor and Total flops
- Memory per processor and Total memory
- Architecture type (SIMD,MIMD, ...)
- Interconnect type
- Use?
- Anything special?

**Idea: Get you used to the vocabulary of machine architectures**

PS. All students should pick a unique machine! How do you do this efficiently?  
Oooohhhh ... !!

# HW 1 (iii)

Tell me about something in your life experience that involves concurrency/parallelism!

# HW 1: Recap

Create a single PDF called `<your_name>_HW1.pdf` and submit it to the CANVAS assignment HW1, that contains:

- (i) Screen shots of `whoami` that prove that you can get on machines: `hb.ucsc.edu`, `grape.soe.ucsc.edu`
- (ii) A description of your `unique` Top500 machine
- (iii) A description of something in your life experience that involves concurrency/parallelism (1 paragraph)!

You should be able to use a phone app like CamScanner or IOS Notes to make PDFs if necessary.