

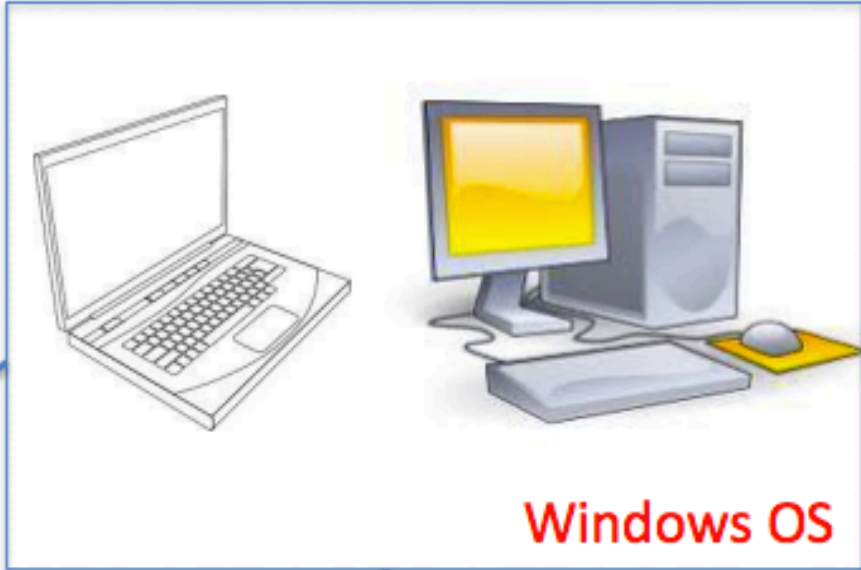
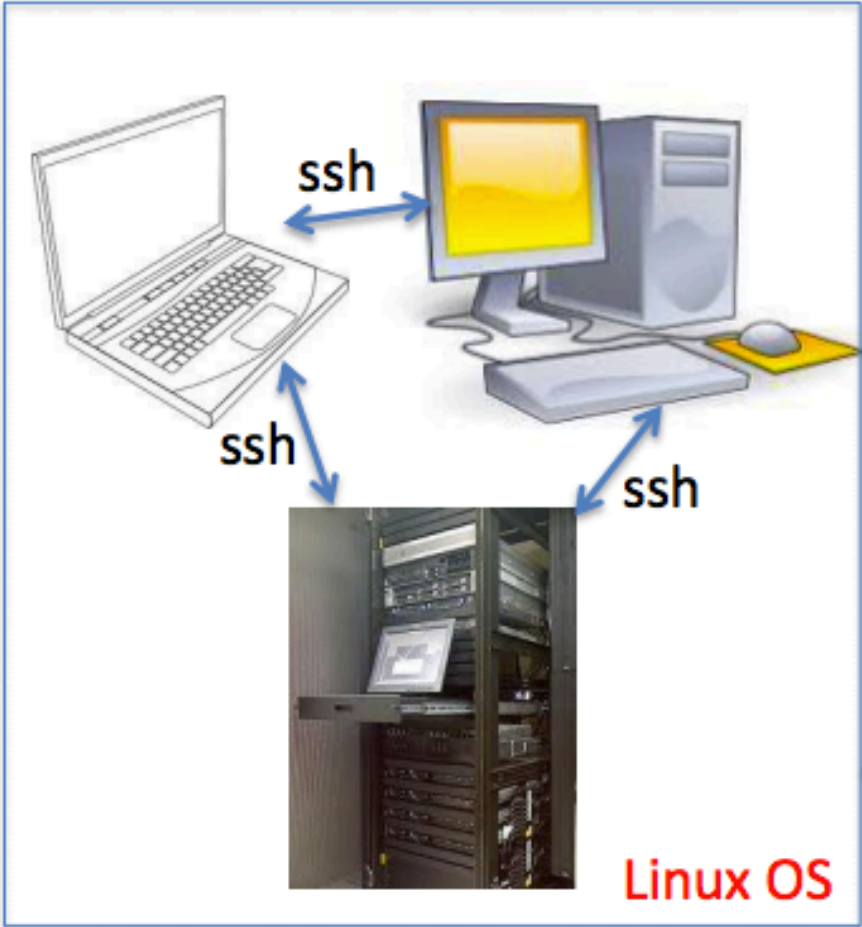
# **Intro to Unix and Linux**

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Fall 2015

No terminal; install ssh client

With terminal



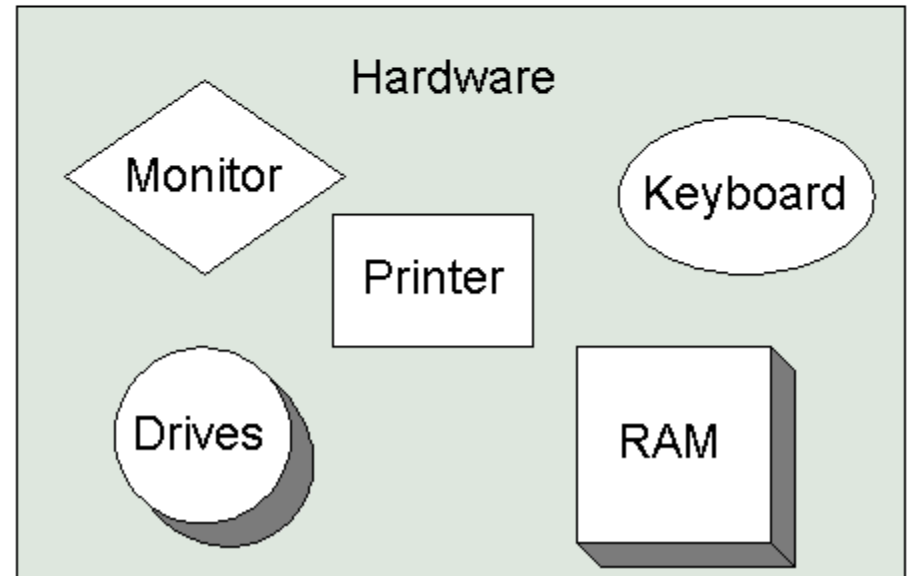
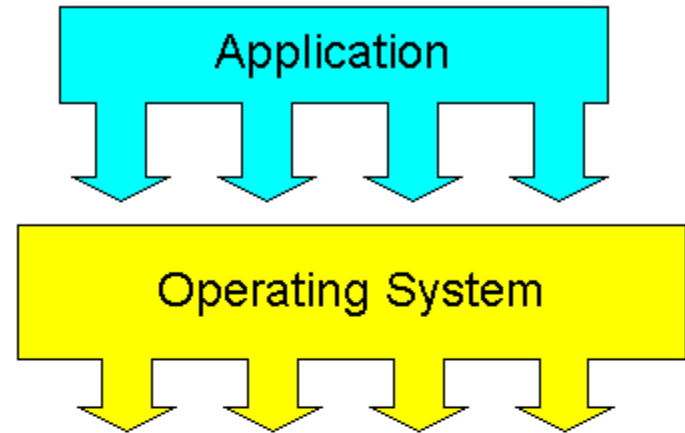
ssh

With terminal



# Operating Systems

- Operating systems (OSs)
  - Windows
  - MAC OS
  - UNIX



# Why do bioinformaticians NOT like Windows?

- OS is NOT free
- Applications are NOT free
- The OS uses too much CPU and RAM resource
- Command-line is too simple to support automated data processing

# Why do Bioinformaticians prefer Mac or UNIX over Windows?

- Better development environment
- Software availability
- Powerful command-line interface (terminal)

To really learn bioinformatics (regardless of whether you're a "biology student"), you need to become familiar with a "\*nix" environment and the tools that it provides

# UNIX & Linux

- There are many different versions of UNIX, although they share common similarities. The most popular **varieties of UNIX** are Sun Solaris, GNU/Linux, and MacOS X
- Linux is a Unix-like computer operating system assembled under the model of free and open source software development and distribution. The Linux kernel was written in 1991 by **Linus Torvalds**

Linux distributions take the Linux kernel and combine it with other free software to create complete packages

## What's The Best Linux Distribution? (Poll Closed)

Arch Linux 14.56% (1,669 votes)



Ubuntu (and variants) 51.15% (5,863 votes)



Linux Mint 15.78% (1,809 votes)



Fedora 8.44% (967 votes)



Debian 10.08% (1,155 votes)



Total Votes: 11,463

Ubuntu: one of the most popular desktop Linux Distro

# Two distinct UNIX environments

- Large/super computer cluster
- Individual Linux desktop/workstation





# MAC users

- MAC OS is essentially Unix based and has built-in terminal.

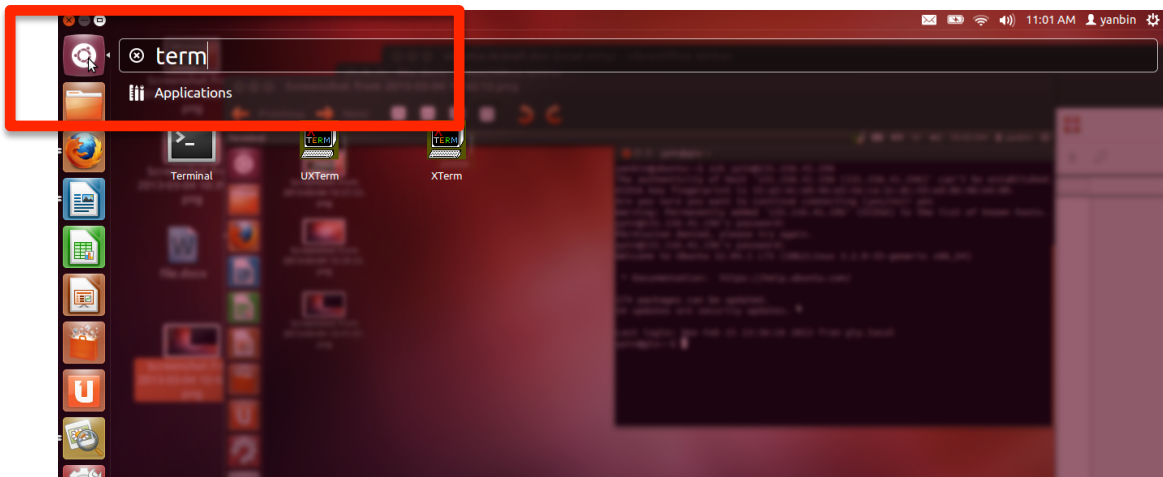
<http://tech-devnet.blogspot.de/2012/05/running-ubuntu-1204-on-mac.html>

# Multiple ways to install ubuntu

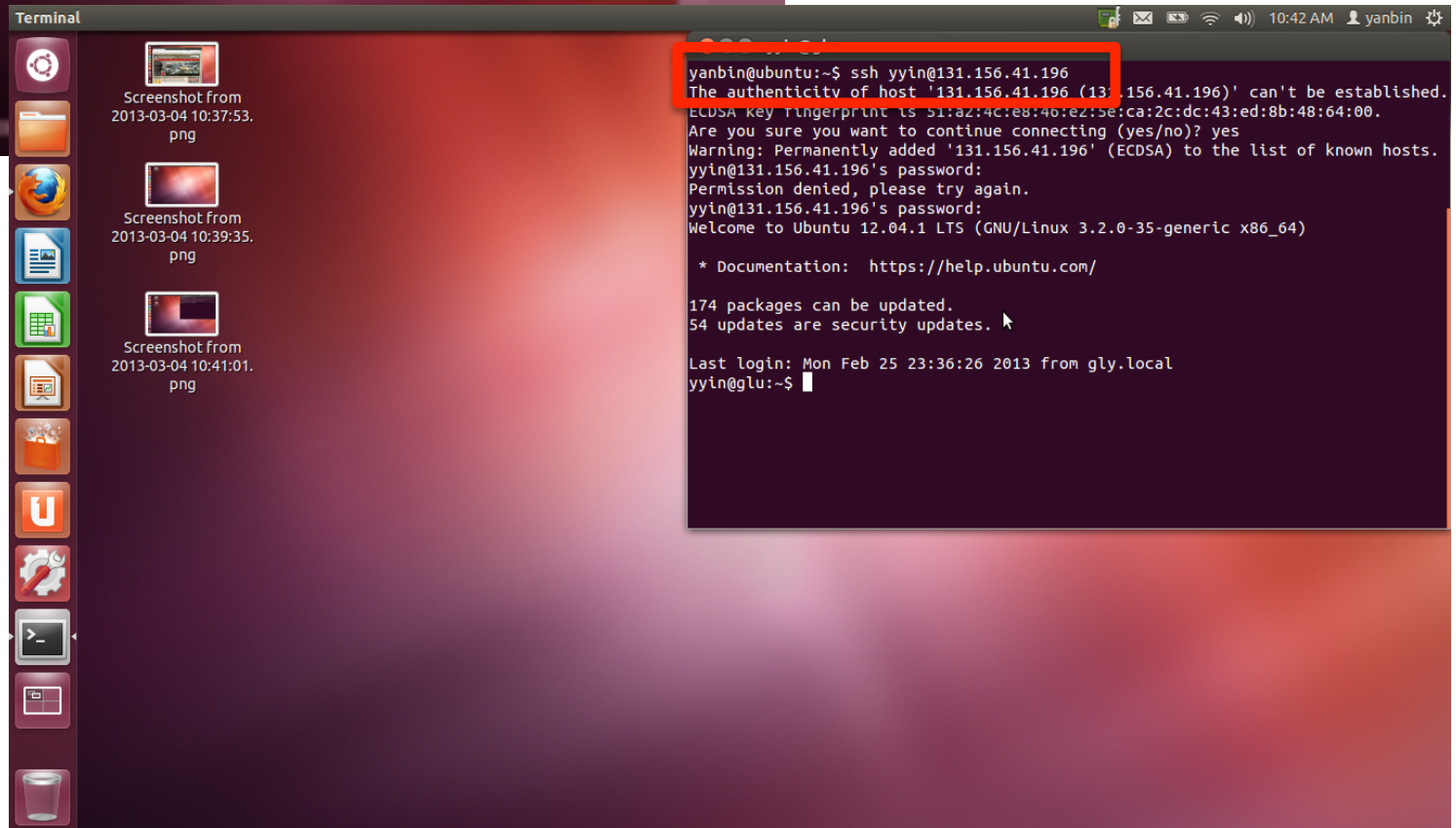
- [http://www.youtube.com/watch?v=ba9Wv-XU\\_4M](http://www.youtube.com/watch?v=ba9Wv-XU_4M)
- Make sure you are connected to the internet!
- WINDOWS 8 can NOT run Ubuntu alongside



Screenshot from  
2013-03-04 10:37:53.  
png



Ctrl+Alt+t



Install ubuntu on a USB stick and boot from there

## Easy ways to switch to Ubuntu



### From an older version

If you're already running Ubuntu, you can upgrade in a few clicks from [Software Updater](#).

[How to burn a DVD on Ubuntu ›](#)

[How to create a bootable USB stick on Ubuntu ›](#)



### From Windows

If you're using Windows 8 or any computer with a 64-bit processor, we recommend the 64-bit download.

[How to burn a DVD on Windows ›](#)

[How to create a bootable USB stick on Windows ›](#)



### From Mac OS X

Most Macs with Intel processors will work with either 64-bit or Mac images. If the 64-bit image doesn't work, try the Mac image.

[How to burn a DVD on OS X ›](#)

[How to create a bootable USB stick on OS X ›](#)

# Next class: Linux command line basics