Introduction to Linux

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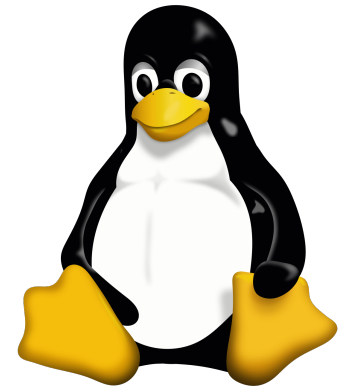
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Linux

- What is Linux?
  - An operating system, like Windows and OSX.

- Where is Linux used?
  - Computationally intensive computing environments.
  - E.g., servers, clusters, and supercomputers.

- What are the advantages to Linux?
  - Free and open source.
  - Increased security.

- What are the disadvantages to Linux?
  - Can be difficult to find applications.
  - Not all hardware is compatible with Linux.
  - Support can be lacking.

Do I have Linux on my computer?

- If you have a mac:
  - OSX is a version of Linux. Just open your *terminal* application.

- If you have a PC:
  - you will have to install Cygwin, a unix-like environment.
    https://cygwin.com/install.html
  - Introduction and installation instructions
    https://physionet.org/physiotools/cygwin/
  - A cheatsheet for Cygwin
    http://www.voxforge.org/home/docs/cygwin-cheat-sheet
  - A guide to locating your Windows files:
    https://www.physionet.org/physiotools/cygwin/#finding-cygwin-files-with-windows-applications-and

What are we going to do with Linux?

- Navigate the filesystem
  - ls, pwd, cd
- Make, move, and remove files and directories
  - touch, rm, mkdir, cp, mv
- Look at files
  - cat, head, tail, less
- Search files
  - grep
- https://www.lynda.vt.com - **Learning Linux Command Line**

Let's create a small bash script

Before next class... install Python

- Make sure you install Python version 2.7

- For Mac users:
  - Should be pre-installed.
  - To confirm, open up a terminal window and type:
    ```
    python
    ```
- For Windows:
  - Download version 2.7.14 from https://www.python.org/downloads/
  - Follow instructions.