Linux 101

So you downloaded linux...

***The terminal***

* Navigating your file system

**(case sensitive)**

* + **sudo**:

Gives administrator privileges to anything you are typing

* + **rtfm**: read the f\*\*\*ing manual

This is not a command by itself, but it is important to know that almost every linux software has a VERY USEFUL manual

The majority of the time, you can use the **-help** flag

(in linux, anything with - is a flag/tag)

Example:

* + - **atom -help**
    - **firefox -help**
* Side note: you can use the **-help** command to find out what other commands a program has too.
  + **apt-get:**

Basically an app store for your terminal.

Use the **install** tag to download things

Use the **update** or **upgrade** on a software you own to get the most current version

Example:

* sudo apt-get install atom
  + **cd**: change directory

This allows you to open a folder or backtrack to a parent directory

Example:

* cd /Documents/School

this will navigate you to your school folder inside of your documents folder

* + - cd ..
    - This will bring you back to the previous folder
  + **chmod**: change mode

Can change the privileges of a file

Example:

* Files can be read only, write only, password locked, etc.
* chmod 777 gives all permissions
  + **ls**: list

this will list all of the contents of the folder you are currently in

* + **pwd**: print working directory

This will tell you exactly what folder you are in currently

**To update to the latest version of Mint:**

**sudo apt-get install mintupgrade**

***Programs and software***

In linux, programs and software are called “packages”, so when someone is talking

about installing or upgrading a package, they’re just talking about a program they are

using.

A “directory” is just a folder.

GitHub is a place that programmers post their code for everyone to use and even sometimes edit. THE WHOLE POINT OF LINUX IS THE IDEA OF **“OPEN SOURCE”.**

Most linux users believe that code should be openly shared so that we can all work on it and make improvements, not make a profit off of it.

A “repo” or repository is a location that you can download a package(program) from.

There are thousands of repos on GitHub. Linux has very useful tools for retrieving packages from GitHub or any other repo. You can try using the tool curl along with a URL to download from linux. IT IS NOT RECOMMENDED TO TRY AND MANUALLY INSTALL A PACKAGE. The tools are safer and easier to use.

Example:

**curl ftp://**[**ftp.example.com/file[1-20].jpeg**](http://ftp.example.com/file%5B1-20%5D.jpeg)

The above command will use curl to go to a website and download a picture from it. The picture will download to whatever directory(folder) you are currently in

use curl -help to find out what else it can do

Packages can come as:

**.zip**

**.tar**

**.tar.gz**

… other variations of tar

To run a program from the terminal, use **./** (period forward slash)

Example:

**./program\_name**

The program MUST have executable permissions. If it does not, you can use chmod to change it to a .exe file.

The command to make a file an executable is: **chmod +x file\_name** (+x is executable)

The office suite in linux is called LibreOffice, its an open-source copy of Microsoft office

**Misc LINUX Information**

There are many different ‘flavors’ of linux. These are called *distributions*.

If you run into someone else that uses linux, their first question will always be:

“Omg you use Linux too, what “distro” are you running?”

Desktop environment -

Linux is VERY customizable which is why so many people like it. For example, the android operating system is just a “skin” on top of Linux. You might be surprised to find out that MacOS is also built off of Linux. Windows is its own weird s\*\*\*.

The look and feel of your operating system is called your Desktop Environment.

Some popular options include:

* **XFCE (yours)**
* **Cinnamon**
* **Mate**
* **Gnome**
* **Deepin (mine)**

Some common distributions of linux include:

**Ubuntu** - for people that like to pretend they know a lot about linux

*pros*: easy to use, supports a lot of softwares, official company

*cons*: has some bloatware and unnecessary stuff, app store sucks

**Mint** - A simple but powerful distro

*pros*: runs very well on older computers

*cons*: package manager(app store) is not the worst, but not the best

**Fedora** - Used for managing servers and hacking

*pros*: has a lot of hacking tools

*cons*: is called fedora, not the most easy to use

**Manjaro** - (personal favorite) Very powerful, now corporate linux distro

*pros*: Everything. Fast and reliable, Arch based, has great terminal tools

*cons*: Can’t run too well on older computers

**Arch** - *Just don’t*

built for masochists, Arch doesn’t come with a desktop environment so it's all done through the terminal. Also doesn’t come with drivers, so you’ll have no sound or wifi etc. to start with.

Used by people who are paranoid and don’t want anything on their computer that they didn't download

EVERY DISTRIBUTION IS BUILT OFF OF A KERNEL!!!

A kernel is the lowest level code of the operating system and is responsible for

interacting with the computer hardware.

Example:

* Arch linux has its own kernel which is very powerful and popular
* Manjaro is a distribution that uses Arches kernel but add stuff on top
* Mint is a Debian kernel based distribution.