

Configuration

CS14 - S26

Quick ssh wrap-up

- ssh w/out login password should now work
 - * It was a permissions issue! We'll take about permissions later in the semester.
- Use ssh-add to avoid typing your ssh-key password multiple times
 - * e.g. ``$ ssh-add``
 - * Useful if you are doing a lot of git work, or scp'ing, or logging in and out
- Let's review new work submission process as a class

Quick Navigation Thing: Symlinks

- Symbolic Links (aka symlinks)
 - A “file” that is an alternate path to some other directory/file
 - Useful for shortcuts, avoiding file duplication

Create with ``$ ln -s <place> <name>``

Read with ``$ ls -l``

Configuration

Goal today is to configure various files and programs to make the work environment efficient and enjoyable to use.

We'll cover three kinds of configuration (among many)

- Package installation with ``apt``
- Dotfiles with ``.bashrc``
- Text editor modification with ``.vimrc``, ``init.vim``, and vim plugins

Package Managers: apt

Package: A self-contained piece of software (typically from the internet)

Package Manager: A piece of software responsible for managing packages, including

- Maintaining a list of sources
- Providing an interface for finding and installing packages
- Finding and installing dependencies and documentation

`apt` - The default package manager on Debian systems. Requires `sudo` privileges.

(In CS classes at Swarthmore you may also run into `pip`)

sudo

sudo: “Super user do”

- Perform operation with “root user” privileges
- Can do OS altering operations
 - Install new packages
 - Access other users’ files
 - Modify (or even remove!) critical OS files
- You are a sudoer on your VM. Be careful!



Package Managers: apt

apt

search <name>

install <name>

update

upgrade (be careful with this one!)

install --only-upgrade <name>

remove <name> (remove <name> but not dependencies)

autoremove <name> (remove <name> and dependencies)

Dotfiles: .bashrc

Dotfiles - “hidden” files that typically contain configurations or tokens that are read at startup by various programs. Won't appear with `ls` unless using `-a` flag.

`.bashrc` - one of several files that configures bash. Often contains:

- Environment variables
- Aliases
- Various checks for the state of the system bash is running on

`.vimrc` (for Vim) and `init.vim` (for Neovim)

- `.vimrc`, the config file for `vim` is stored in your home directory.
- `init.vim`, the config file for `nvim` is stored in `~/.config/nvim`.

I have configured your `init.vim` to inherit from `.vimrc` using the `source` command.

Text editor plugins: vim-plug

Plugins are extensions for a text editor. They're packages that add features.

We'll use the open source manager vim-plug, which works for both Vim and Neovim:

- github.com/junegunn/vim-plug