### **Unix basics**

#### **File Commands**

Is - directory listing

Is -al – formatted listing with hidden files

find \* - list path to all files below current directory level

cd <dir> - change directory to <dir>

cd – change to home

pwd - show current directory

mkdir <dir> - create a directory <dir>

rm <file> - delete <file>

rm -r <dir> - delete directory <dir>

rm -f <file> - force remove file

cp <file1> <file2> - copy <file1> to <file2>

cp -r <dir1> <dir2> - copy <dir1> to <dir2>; create <dir2> if it
doesn't exist

mv <file2> <file2> - rename or move <file1> to <file2> ; if <file2>
is an existing directory, moves <file1> into directory <file2>

In -s <file> ink> - create symbolic link link> to <file>

touch <file> - create or update <file>

**cat** *<file>* – dump *<file>* contents to screen

less <file> - scroll through the contents of <file>

head <file> - output the first 10 lines of <file>

tail <file> - output the last 10 lines of <file>

tail -f < file> — output the contents of < file> as it grows, starting with the last 10 lines

#### Searching

grep <pattern> <files> - search for <pattern> in <files>

grep -r <pattern> <dir> - search recursively for <pattern> in <dir> <command> | grep <pattern> - search for <pattern> in the

output of <command>

awk – tool to parse through files contents; see awk one-linerssed – tool to parse through file contents; see sed one-liners

**Process Management** 

ps – display your currently active processes

top – display all running processes

kill pid – kill process id pid

#### Network

ssh <user>@<host> - connect to <host> as <user>

sftp <user>@<host> - connect to <host> as <user> for secure file
 transfer; once connected, navigate to the desired directory
 then use get <file> to download <file> from <host> to your
 computer, and put <file> to upload <file> from your computer
 to <host>

scp <user>@<host>:<hostdir/ file> <dir> - connect to <host> as
 <user> for secure copy to download <file> that is located at the
 directory <hostdir> at <host> to the local directory <dir>. Use
 the -r flag to recursively download entire directories.

scp <dir/ file> <user>@<host>:<hostdir>— connect to <host> as
 <user> for secure copy to upload <file> that is located at the
 directory locally at <dir> to the <host> directory <dir>. Use the
 -r flag to recursively copy upload directories.

#### **System Information**

date - show the current date and time

man <command> - show the manual for <command>

df - show disk usage

**du** – show directory space usage; use **-h** flag for better units **which <app>** – show location of **<app>** that will run by default

### Compression

tar -cf <file.tar> <files> - create a tar named <file.tar> containing <files>

tar -xf <file.tar> - extract the <files> from <file.tar>

tar -czf <file.tar.gz> <files> – create a tar with Gzip compression

tar -xzf <file.tar.qz> - extract a tar using Gzip

gzip <file> - compresses <file> and renames it to <file.gz>

gzip -d <file.gz> - decompresses <file.gz> back to <file>

# vi / vim basics

### Quitting

:wq - exit, saving changes

:q - exit as long as there have been no changes

:q! – exit and ignore any changes

### **Inserting Text**

i – insert before cursor

I - insert before line

**a** – append after cursor

A – append after line

o – open a new line after current line

O – open a new line before current line

esc – end inserting text

### **Deleting Text**

x – delete character to the right of cursor

X – delete character to the left of cursor

**D** – delete to the end of the line

dd - delete current line

:d – delete current line

## **Search for strings**

/string – search forward for string

?string – search back for string

n – search for next instance of string

**N** – search for previous instance of string

#### Replace

:s/<pattern>/<string>/<flags> - replace <pattern> with <string> according to <flags>.

 ${\rm g}-{\rm flag}$  to replace all occurences of pattern

c – flag to confirm replaces.

# git basics

git clone <repo> – clone the <repo> to your local computer

git init – create a new local repository

git add . - add all current changes to next commit

git commit -m "<msg>" - commit previously staged changes with
message <msg>

git push – upload your local committed changes to the repository
 git pull – download current version of repo to local computer
 git status – show information, including branch name and
 changed files

git branch – list all branches in current repository

git branch <name> - create a new branch named <name>

git checkout <name> - switch to the branch <name>