#Linux Cheat Sheet

##File Commands:

- ls – directory listing

- ls -al – formatted listing with hidden files

- 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

- rm -rf dir – force remove directory dir *

- cp file1 file2 – copy file1 to file2

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

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

- ln -s file link – create symbolic link link to file

- touch file – create or update file

- cat > file – places standard input into file

- more file – output 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

Process Management:

- ps – display your currently active processes

- top – display all running processes

- kill pid – kill process id pid

- killall proc – kill all processes named proc *

- bg – lists stopped or background jobs; resume a stopped job in the background

- fg – brings the most recent job to foreground

- fg n – brings job n to the foreground

File Permissions:

- chmod octal file – change the permissions of file to octal, which can be found separately for user, group, and world by adding:

- 4 – read (r)

- 2 – write (w)

- 1 – execute (x)

Examples:

- chmod 777 – read, write, execute for all

- chmod 755 – rwx for owner, rx for group and world

##SSH:

- ssh user@host – connect to host as user

- ssh -p port user@host – connect to host on port port as user

- ssh-copy-id user@host – add your key to host for user to enable a keyed or passwordless login

##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

- locate file – find all instances of file

##System Info:

- date – show the current date and time

- cal – show this month's calendar

- uptime – show current uptime

- w – display who is online

- whoami – who you are logged in as

- finger user – display information about user

- uname -a – show kernel information

- cat /proc/cpuinfo – cpu information

- cat /proc/meminfo – memory information

- man command – show the manual for command

- df – show disk usage

- du – show directory space usage

- free – show memory and swap usage

- whereis app – show possible locations of app

- which app – show which app will be 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.gz – extract a tar using Gzip

- tar cjf file.tar.bz2 – create a tar with Bzip2 compression

- tar xjf file.tar.bz2 – extract a tar using Bzip2

- gzip file – compresses file and renames it to file.gz

- gzip -d file.gz – decompresses file.gz back to file

Network:

- ping host – ping host and output results

- whois domain – get whois information for domain

- dig domain – get DNS information for domain

- dig -x host – reverse lookup host

- wget file – download file

- wget -c file – continue a stopped download

##Installation:

- dpkg -i pkg.deb – install a package (Debian)

- rpm -Uvh pkg.rpm – install a package (RPM)

##Install from source:

- ./configure

- make

- make install

##Shortcuts:

- Ctrl+C – halts the current command

- Ctrl+Z – stops the current command, resume with

- fg in the foreground or bg in the background

- Ctrl+D – log out of current session, similar to exit

- Ctrl+W – erases one word in the current line

- Ctrl+U – erases the whole line

- Ctrl+R – type to bring up a recent command

- !! - repeats the last command

- exit – log out of current session