#Linux Commands

##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