### UNIX/LINUX REFERENCE CARD

#### Basic File and Directory Manipulation
- `ls` .. List directory contents
- `cp` .. Copy files
- `mv` .. Move/rename files
- `rm` .. Remove files
- `shred` .. Destroy data in files
- `ln` .. Link files
- `cd` .. Change directory
- `pwd` .. Print present working directory
- `mkdir` .. Make directory
- `rmdir` .. Remove directory

#### File Viewing
- `cat` .. Concatenate files and print to stdout
- `more` .. Page through files
- `less` .. Page through files
- `nl` .. Number lines of files
- `od` .. Prints file in octal and other formats

#### File Text Manipulation
- `grep` .. Search text for matching patterns
- `cut` .. Remove sections from each line of files
- `paste` .. Merge lines of files
- `tr` .. Translate or delete characters
- `join` .. Join lines of files on a common field
- `split` .. Split file into pieces
- `csplit` .. Split file into sections by context lines
- `sort` .. Sort lines
- `uniq` .. Remove duplicate lines from sorted file
- `fmt` .. Simple optimal text formatter

#### File Properties
- `stat` .. Display file status
- `wc` .. Count bytes/words/lines
- `du` .. Estimate disk usage
- `file` .. Manipulate file attributes
- `touch` .. Change file timestamps
- `chown` .. Change file owner
- `chmod` .. Change file group

#### File and Commands Location and Help
- `find` .. Locate files
- `locate` .. Locate files via index
- `which` .. Locate commands
- `apropos` .. Locate commands by keyword lookup
- `man` .. Find and display online help page
- `whereis` .. Locate bin, sbin and man files for command

#### File Compression
- `gzip` .. Compress/decompress files (LZ77)
- `bzip2` .. Compress/decompress files (BWT)
- `[un]zip` .. (De-)Compress files (PKZIP compatible)

#### File Comparison and Patching
- `diff` .. Compare files line by line
- `patch` .. Apply changes from a diff file
- `cmp` .. Compare sorted files
- `md5sum` .. Compute and check MD5 message digest

#### Disks and Filesystems
- `df` .. Show free disk space
- `mount` .. Make a disk accessible
- `fcsk` .. Check a disk for errors
- `sync` .. Synchronizes filesystem buffers and disk
- `quota` .. Check disk quota for current user

#### Backups and Remote Storage
- `mt` .. Control a tape drive
- `dump` .. Back up a disk
- `restore` .. Restore a dump
- `tar` .. Read/write (compressed) tape archives
- `rsync` .. Mirror a set of files
- `dar` .. Archive a disk

#### Environment
- `env` .. Display environment variables
- `echo` .. Print variable
- `export` .. Write environment variables (Bash)
- `set` .. Write environment variables with more options
- `unset` .. Unset environment variables

#### Scheduling Jobs
- `sleep` .. Delay for specified time
- `watch` .. Run programs at set intervals
- `at` .. Schedule a job
- `cron` .. Schedule a job for the future
- `crontab` .. Schedule repeated jobs for cron
- `expect` .. Automates tasks using interactive programs

#### Printing
- `lpr` .. Print files
- `lpq` .. View print queue
- `lprm` .. Remove print jobs

#### Processes
- `ps` .. List all processes
- `w` .. List users’ processes
- `uptime` .. View system uptime
- `top` .. Monitor processes
- `xload` .. Monitor system load
- `kill` .. Terminate processes
- `nice` .. Run process with modified priority
- `renice` .. Alter running process’ priority

#### Hosts
- `uname` .. Print system information
- `hostname` .. Print the system’s hostname
- `ifconfig` .. Set/display network information
- `host` .. Look up DNS
- `whois` .. Look up domain registrants
- `ping` .. Check reachability and response time of a host
- `traceroute` .. View network path to a host

#### File Editing
- `vim` .. Text editor
- `gvim` .. Forks a GUI version of ViM
- `emacs` .. Text editor
- `sed` .. GNU stream text editor

#### Spelling Operations
- `ispell` .. Check spelling interactively
- `look` .. Look up spelling
### Networking
- `ssh` Securely log into remote hosts
- `scp` Securely copy files between hosts
- `sftp` Securely copy files between hosts
- `wget` Retrieve a url to disk
- `curl` Retrieve a url to disk
- `gaim` Instant messaging
- `talk` Send messages to a terminal
- `mesg` Enable/prohibit talk/write
- `finger` Display information about users
- `who` Show who is logged in
- `last` Displays login and logout information

### Email, News and Web Browsing
- `pine` Terminal-based email and news program
- `mutt` Terminal-based email program
- `mail` Minimal mail client
- `links` Text-only web browser
- `firefox` GUI web browser

### Text Processors and Viewers
- `latex` Compiles LaTeX → TeX DVI
- `pdflatex` Compiles LaTeX → PDF
- `bibtex` Compiles BiBTeX files
- `gv` View Postscript/PDF files
- `xdvi` View TeX DVI files
- `dvi2ps` Prints/converts TeX DVI files
- `ps2pdf` Converts Postscript → PDF
- `antword` Converts MS Word → ASCII

### Image Manipulation/Display
- `xv` Image viewer for X
- `qiv` Fast gdk/imlib image viewer for X
- `feh` Fast imlib2 image viewer for X
- `display` ImageMagick: display image
- `convert` ImageMagick: convert image
- `identify` ImageMagick: display file image info
- `import` ImageMagick: save screen/window as image
- `compare` ImageMagick: compare images
- `xfig` Tool for drawing figures
- `transfig` Converts fig → portable TeX figure
- `gimp` GNU image manipulation program

### Development
- `cscope` Interactively examine a C program
- `gcc` Compiles C and C++ code
- `gdb` Debugger for C and C++
- `java` Compiles Java code
- `jdb` Debugger for Java
- `awk` Pattern scanning and processing language
- `perl` Perl programming language
- `python` Python programming language
- `ruby` Ruby programming language
- `matlab` Technical computing language
- `mathematica` Mathematical computing language
- `R` Data analysis language

### Encryption
- `pgp` Public key encryption program
- `gpg` GnuPG: an encryption tool like PGP

### Terminal Emulators
- `xterm` Standard terminal emulator for X
- `rxvt` Lightweight terminal emulator for X
- `mrxvt` Multi-tab enabled version of rxvt

### Miscellaneous
- `alias` Create shorthand for a series commands
- `su` Allows you to run a shell as another user
- `sudo` Lets you execute a command as another user
- `nohup` Lets a program run after you log out

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