Unix Command Line Reference

Borrowed from; all items in *italics* are placeholders, and can be any file name or directory

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* USE WITH CARE!
cp *file1 file2* – copy *file1* to *file2*
cp -r *dir1 dir2* – copy *dir1* to *dir2*; create *dir2* if absent
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 is specified separately for user, group, and world by adding: 4: read(r) 2: write (w) 1: execute (x)
Examples: (For more, see **man chmod**)
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* as *user*
ssh-copy-id *user@host* – add your key to *host* for *user* to enable a keyed or passwordless login

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
uname -a – show kernel information
htop – cpu & memory information [must install!]
man *command* – show the manual for *command*
df – show disk usage
du – show directory space usage
ncdu – navigable, hierarchical disk usage [must install!]
whereis *app* – show possible locations of app
which *app* – show which app will be run by default
whatis *app* – show basic description of app

File Compression

tar cf *file.tar files* – create a tape archive (tar) named *file.tar* containing *files* (See man tar for more options)
tar xf *file.tar* – extract the files from *file.tar*
tar czf *file.tar.gz files* – make tar with Gzip compression
tar xzf *file.tar.gz* – 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*

Network

ping *host* – ping host and output results
wget *file* – download file
wget -c *file* – continue a stopped download

Installation

sudo apt install *program* – installs *program* from an online package repository (a PPA)
sudo apt remove *program* – uninstalls *program*
dpkg -i *pkg.deb* – install from an installer file (Debian)
rpm -Uvh *pkg.rpm* – install from installer file (RPM)

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