Bash Reference Sheet

File Commands

directory listing	**ls**
formatted listing with hidden files	**ls -al**
change directory to *dir*	**cd *dir***
change to home	**cd**
show current directory	**pwd**
create directory *dir*	**mkdir *dir***
delete *file*	**rm *file***
delete directory *dir*	**rm -r *dir***
force remove *file*	**rm -f *file***
force remove directory *dir*	**rm -rf *dir***
copy *file1* to *file2*	**cp file1 *file2***
copy dir1 to dir2; create dir2 if it doesn't exist	**cp -r *dir1 dir2***
rename/move *file1* to *file2*. If *file2* is existing directory, moves *file1* into directory *file2*	**mv *file1 file2***
create symbolic link *link* to *file*	**ln -s *file link***
create or update *file*	**touch *file***
places standard input into *file*	**cat > *file***
output contents of *file*	**more *file***
output the first 10 lines of *file*	**head *file***
output the last 10 lines of *file*	**tail *file***
output the contents of file as it grows, starting with the last 10 lines	**tail -f *file***

Process Management

display your currently active processes	**ps**
display all running processes	**top**
kill process id *pid*	**kill *pid***
kill all precesses named *proc*	**kill *proc***
lists stopped or background jobs; resume a stopped job in the background	**bg**
brings the most recent job to foreground	**fg**
brings job *n* to the foreground	**fg *n***

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
For more options, see **man chmod**.

SSH

connect to *host* as *user*	**ssh *user@host***

Searching

search for *pat* in *files*	**grep *pat files***
search recursively for *pat* in *dir*	**grep -r *pat dir***
search for *pat* in output of *com*	***com* | grep *pat***
find all instances of *file*	**locate *file***

System Info

show the current date and time	**date**
show kernel information	**uname -a**
show the manual for *command*	**man *command***
show disk usage	**df**
show directory space usage	**du**
show possible locations of *app*	**whereis *app***
show which *app* will be run by default	**which *app***

Compression

create a tar named *file.tar* containing *files*	**tar cf *file.tar files***
extract the files from *file.tar*	**tar xf *file.tar***
create tar named *file.tar.gz* containing *files* with Gzip compression	**tar czf *file.tar.gz files***
extract a tar using Gzip	**tar xzf *file.tar.gz***
create a tar with Bzip2 compression	**tar cjf *file.tar.bz2 files***
extract a tar using Bzip2	**tar xjf *file.tar.bz2***
compress *file* and renames it to *file.gz*	**gzip *file***
decompress *file.gz* back to *file*	**gzip -d *file.gz***

Network

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

Shortcuts

halt the current command	**Ctrl+C**
Suspends the current command	**Ctrl+Z**
erase current line	**Ctrl+U**
show previous commands	**Up arrow**
repeat the last command	**!!**
log out of currnet session	**exit**

Environment (bash)

show all current evironment variables and values	**printenv**
show current value of environment variable *VAR*	**printenv *VAR***
set environment variable *VAR* to *value*	**export *VAR=value***