Basic 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 Permission

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

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

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