**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
**df** – Show disk usage
**du** – Show directory space usage
**free** – Show memory and swap usage

**Keyboard Shortcuts**

**Enter** – Run the command
**Up Arrow** – Show the previous command
**Ctrl + R** – Allows you to type a part of the command you're looking for and finds it

**Ctrl + Z** – Stops the current command, resume with fg in the foreground or bg in the background
**Ctrl +** C – Halts the current command, cancel the current operation and/or start with a fresh new line
**Ctrl + L** – Clear the screen

**command | less** – Allows the scrolling of the bash command window using Shift + Up Arrow and Shift + Down Arrow

**!!** – Repeats the last command
**command !$** – Repeats the last argument of the previous command
**Esc + . (a period)** – Insert the last argument of the previous command on the fly, which enables you to edit it before executing the command

**Ctrl + A** – Return to the start of the command you're typing
**Ctrl + E** – Go to the end of the command you're typing
**Ctrl + U** – Cut everything before the cursor to a special clipboard, erases the whole line
**Ctrl + K** – Cut everything after the cursor to a special clipboard
**Ctrl + Y** – Paste from the special clipboard that Ctrl + U and Ctrl + K save their data to
**Ctrl + T** – Swap the two characters before the cursor (you can actually use this to transport a character from the left to the right, try it!)
**Ctrl + W** – Delete the word / argument left of the cursor in the current line

**Ctrl + D** – Log out of current session, similar to exit

**Learn the Commands**

**apropos subject** – List manual pages for subject
**man -k keyword** – Display man pages containing keyword
**man command** – Show the manual for command

**man -t man | ps2pdf - > man.pdf** – Make a pdf of a manual page
**which command** – Show full path name of command
**time command** – See how long a command takes

**whereis app** – Show possible locations of app
**which app** – Show which app will be run by default; it shows the full path

**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
**find / -name filename** – Starting with the root directory, look for the file called filename
**find / -name "*filename*"** – Starting with the root directory, look for the file containing the string filename

**locate filename** – Find a file called filename using the locate command; this assumes you have already used the command updatedb (see next)

**updatedb** – Create or update the database of files on all file systems attached to the Linux root directory

**which filename** – Show the subdirectory containing the executable file called filename

**grep TextStringToFind /dir** – Starting with the directory called dir, look for and list all files containing TextStringToFind

**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.

**File Commands**

**ls** – Directory listing
**ls -l** – List files in current directory using long format
**ls -laC** – List all files in current directory in long format and display in columns
**ls -F** – List files in current directory and indicate the file type
**ls -al** – Formatted listing with hidden files

**cd dir** – Change directory to dir
**cd** – Change to home
**mkdir dir** – Create a directory dir

**pwd** – Show current directory

**rm name** – Remove a file or directory called name
**rm -r dir** – Delete directory dir
**rm -f file** – Force remove file
**rm -rf dir** – Force remove an entire directory dir and all it's included files and subdirectories (use with extreme caution)

**cp file1 file2** – Copy file1 to file2
**cp -r dir1 dir2** – Copy dir1 to dir2; create dir2 if it doesn't exist
**cp file /home/dirname** – Copy the file called filename to the /home/dirname directory

**mv file /home/dirname** – Move the file called filename to the /home/dirname directory
**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
**cat file** – Display the file called file

**more file** – Display the file called file one page at a time, proceed to next page using the spacebar
**head file** – Output the first 10 lines of file
**head -20 file** – Display the first 20 lines of the file called file
**tail file** – Output the last 10 lines of file
**tail -20 file** – Display the last 20 lines of the file called file
**tail -f file** – Output the contents of file as it grows, starting with the last 10 lines

**Compression**

**tar cf file.tar files** – Create a tar named file.tar containing files
t**ar xf file.tar** – Extract the files from file.tar

**tar czf file.tar.gz files** – Create a tar with Gzip compression
t**ar 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

**Printing**

**/etc/rc.d/init.d/lpd start** – Start the print daemon
**/etc/rc.d/init.d/lpd stop** – Stop the print daemon
**/etc/rc.d/init.d/lpd status** – Display status of the print daemon
**lpq** – Display jobs in print queue
**lprm** – Remove jobs from queue

**lpr** – Print a file
**lpc** – Printer control tool
**man subject | lpr** – Print the manual page called subject as plain text
**man -t subject | lpr** – Print the manual page called subject as Postscript output
**printtool** – Start X printer setup interface

**Network**

**ifconfig** – List IP addresses for all devices on the local machine
**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

**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

**User Administration**

**adduser accountname** – Create a new user call accountname
**passwd accountname** – Give accountname a new password
**su** – Log in as superuser from current login
**exit** – Stop being superuser and revert to normal user

**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 (use with extreme caution)
**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

**Installation from source**

**./configure**
**make**
**make install**
**dpkg -i pkg.deb** – install a DEB package (Debian / Ubuntu / Linux Mint)
**rpm -Uvh pkg.rpm** – install a RPM package (Red Hat / Fedora)

**Stopping & Starting**

**shutdown -h now** – Shutdown the system now and do not reboot
**halt** – Stop all processes - same as above
**shutdown -r 5** – Shutdown the system in 5 minutes and reboot
**shutdown -r now** – Shutdown the system now and reboot
**reboot** – Stop all processes and then reboot - same as above
**startx** – Start the X system