

Linux Command Cheat Sheet

This is not a comprehensive list of all Linux commands. Rather it is digestible compilation of commands that you will encounter on a regular basis. The commands below are broken down into several categories, so they are easier to find. Each command can have numerous arguments, so I did not list them here. Please use the commands man page or help to explore more.

File Commands

Command	Description
ls	List contents of a directory
mkdir	Create a new directory
touch	Create a new, empty file, or update the modified time of an existing one
cd	Change directory to another location
pwd	View present working directory
file	View the type of a file
cat file	View the contents of a file
grep	View the contents of a file that match a pattern
vim file	Open a file (or create new one) in vim text editor
rm	Remove a file or empty directory
rm -r	Remove a directory and its contents
mv	Move or rename a file or directory
cp	Copy a file or directory
rsync	Remote file copying tool
tail file	Output parts of a file
less file	View and navigate a file
tree	Visualize a directory structure in the terminal

Search Files and Directories

Command	Description
find	Search for files and directories based on criteria
locate	Find files by name
which	Locate the path for a binary
whereis	Locate the binary, source, and man page for a command

Basic Administration Commands

Command	Description
---------	-------------

whoami	Print the current user ID
sudo	Execute a command with elevated permissions
sudo dnf install	Install a package on an RPM based system
sudo dnf remove	Remove a package on an RPM based system
reboot	Reboot the host
cron	Execute commands on a schedule
hostname	Print system hostname
timedatectl	Manage the system clock
uptime	View how long the host has been running

Storage Commands

Command	Description
df OR df -h	Report file system disk space usage
fdisk	Manipulate disk partition table
du	Estimate file space usage
mount and umount	Mount and unmount a filesystem

Help

Command	Description
man	Interface to the online manual
info	Reads info documents
whatis	View manual page descriptions
apropos	Search man pages

Archive and Compression Commands

Command	Description
tar -cf file.tar	Create an uncompressed tar archive
tar -czf file.tar.gz	Create a tar archive using gzip compression
tar -xf file	Extract contents of tar archive
gzip file	Compress file with gzip compression
gunzip file.gz	Expand a gzipped file

Networking Commands

Command	Description
ip addr list	Show IP address and other information for all active interfaces
ip route list	Show IP address of default gateway
ping eccouncil.com	Send ICMP packets to network hosts

traceroute	Print route packet trace to network hosts
ssh	OpenSSH client
ss	Investigate sockets on network host
dig eccouncil.com	DNS lookup application
tcpdump	Dump traffic on a network

File Permissions and Ownership

Command	Description
chmod	Change file modes or ACL's
chown	Change file owner and group
chgrp	Change group

User Management Commands

Command	Description
useradd	Create a new user
userdel	Delete a user account and related files
usermod	Modify a user account
groupadd	Create a new group
groupdel	Delete a group

System Resource Commands

Command	Description
free	Display used and free memory
top	Display Linux processes
nice	Start a new process with a specified priority
renice	Change the nice value of a currently running process
ps	Display running processes
kill or killall	Terminate a process
bg	Send a task to the background
fg	Bring a task to the foreground

Environment Variable Commands

Command	Description
printenv OR printenv name	Print all or part of environment
Export AWS_REGION="us-west-2"	Set a temporary environment variable
echo \$AWS_REGION	Print the value of a variable
unset	Remove a variable

Kernel Information and Module Management

Command	Description
uname	Print system information
lsmod	List kernel modules that are currently loaded
modinfo module_name	Show information about kernel module
modprobe module_name	Load a module into the kernel
modprobe -r module_name	Unload a module from the kernel

Hardware Information Commands

Command	Description
lspci	List all PCI devices
dmidecode	Dump computers DMI table
dmidecode -s bios-vendor	Retrieve the name of your BIOS vendor
cat /proc/cpuinfo	Print CPU information like processor type, socket, speed, configured flags
cat /proc/meminfo	Print detailed memory information like total, free, buffers, and cache
lshw	List details about all the hardware components on a host
biosdecode	Display general information about the systems BIOS
lsusb	List all the USB devices on a host
hdparm -I /dev/sdx	Print hard drive information like serial number and manufacturer
hdparm -tT /dev/sdx	Print hard drive speed