

Linux Command Starter 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 |
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|---------|-------------|

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|------------------|---|
| 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 -xzf 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 |

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| 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 |