

Linux Command Cheat Sheet

Basic File and Directory Operations

- `ls`: List directory contents.
- `ls -l`: Long listing format.
- `ls -a`: Include hidden files.
- `ls -la`: Long listing with hidden files.
- `cd /path/to/directory`: Navigate to a specific directory.
- `cd ~`: Go to the home directory.
- `pwd`: Print working directory.
- `mkdir dirname`: Create a directory named `dirname`.
- `rm filename`: Remove a file.
- `rm -r dirname`: Remove a directory recursively.
- `rm -rf /`: Force delete everything (use with caution).
- `cp source destination`: Copy a file.
- `cp -r source_directory destination`: Copy a directory.
- `mv source destination`: Move or rename a file/directory.
- `touch filename`: Create an empty file named `filename`.

File Viewing and Editing

- `cat filename`: Display contents of `filename`.
- `more filename`: Display content with paging.
- `less filename`: View content with navigation.
- `nano filename`: Edit `filename` in nano.
- `vim filename`: Edit `filename` in vim.
- `head filename`: Display the first 10 lines.
- `head -n N filename`: Display the first N lines.
- `tail filename`: Display the last 10 lines.
- `tail -n N filename`: Display the last N lines.

Search and Text Processing

- `grep 'pattern' filename`: Search for 'pattern' in a file.
- `grep -i 'pattern' filename`: Case-insensitive search.
- `grep -r 'pattern' /path`: Recursively search in a directory.
- `find /path -name filename`: Search by name.
- `find /path -type f -name '*.txt'`: Find all `.txt` files.
- `sed 's/old/new/g' filename`: Replace 'old' with 'new'.
- `sed -n 'p' filename`: Print specific lines.

- ``awk '{print $1}' filename``: Print the first column.

System Information

- ``uname -a``: Show all system info.
- ``df -h``: Human-readable disk space usage.
- ``du -sh``: Show size of current directory.
- ``top``: Display tasks and system performance.
- ``ps aux``: Show all processes.
- ``uptime``: Tell how long the system has been running.
- ``whoami``: Show the current logged-in user.

Networking

- ``ifconfig``: Display all network interfaces.
- ``ping hostname``: Test network connection.
- ``netstat -a``: Show all connections.
- ``netstat -s``: Display statistics.
- ``netstat -p``: Show process-related connections.
- ``scp file user@remote:/path``: Copy file to a remote host.

Process Management

- ``kill PID``: Kill process by PID.
- ``killall processname``: Kill all processes with a specific name.
- ``htop``: Interactive process viewer.
- ``crontab -e``: Edit cron jobs.
- ``crontab -l``: List cron jobs.

Compression and Archiving

- ``tar -cvf archive.tar file1 file2``: Create a tar archive.
- ``tar -xvf archive.tar``: Extract a tar archive.
- ``tar -czvf archive.tar.gz directory``: Create a gzip compressed archive.
- ``tar -xzvf archive.tar.gz``: Extract a gzip compressed archive.
- ``gzip filename``: Compress the file.
- ``gunzip filename.gz``: Decompress the file.

User Management

- ``adduser username``: Create a new user.
- ``passwd username``: Change a user's password.

- ``usermod -aG group username``: Add user to a group.

Disk Usage and Partitioning

- ``fdisk -l``: List all partitions.
- ``mount /dev/sda1 /mnt``: Mount partition ``/dev/sda1`` to ``/mnt``.
- ``umount /mnt``: Unmount the file system at ``/mnt``.

Package Management

- ``apt-get update``: Update package lists.
- ``apt-get upgrade``: Upgrade all packages.
- ``apt-get install package``: Install a package.
- ``apt-get remove package``: Remove a package.
- ``yum install package``: Install a package.
- ``yum update``: Update packages.
- ``yum remove package``: Remove a package.

SSH and SCP

- ``ssh user@hostname``: Connect to a remote host.
- ``scp file user@remote:/path``: Copy files to a remote host.

Miscellaneous

- ``echo 'text``: Print 'text' to the terminal.
- ``chmod 755 filename``: Set executable permissions.
- ``chown user:group filename``: Change owner and group.
- ``history | grep command``: Search command history.