Advanced Linux Commands Cheat Sheet

# File and Directory Management

* pwd -
* mkdir [dir] – create directory
* ls -a — List all files including hidden
* tree — Display directory structure as a tree
* stat [file] — Show detailed file status
* file [file] — Show file type
* du -sh [dir] — Directory size summary
* basename [path] — Get filename from path
* dirname [path] — Get directory path
* cat [file] – display the contents of the file
* less [file]
* more [file]
* head
* tail
* file
* cp source file destination file

# File Viewing and Manipulation

* nl [file] — Show file with line numbers
* cut -d':' -f1 /etc/passwd — Extract field from file
* sort [file] — Sort lines alphabetically
* uniq [file] — Remove duplicates
* wc -l [file] — Count lines
* which program; useradd
* locate [file]
* find
* whereis [file]

# System Information

* uptime — Show how long system has been running
* hostname — Display hostname
* lscpu — Show CPU architecture info
* lsblk — Show block devices
* id — Show UID and groups

# Package Management

* sudo apt update — Update package list
* sudo apt upgrade — Upgrade packages
* apt list --installed — Show installed packages
* sudo apt remove [pkg] — Uninstall package
* dpkg -l — List all installed .deb packages

# User and Permissions

* who — Show logged in users
* groups — Show groups for user
* adduser [user] — Add new user
* passwd [user] — Change user password
* whoami
* finger

# Networking

* ip a — Show network interfaces
* ping google.com — Ping test
* netstat -tulnp — List open ports
* curl ifconfig.me — Get public IP
* nslookup [domain] — Resolve domain to IP

# Process Management

* ps aux — Show all running processes
* kill [PID] — Terminate process by ID
* killall [name] — Terminate by name
* nice — Start process with priority
* jobs — List background jobs

# Archiving and Compression

* tar -cvf a.tar dir/ — Create tar archive
* tar -xvf a.tar — Extract tar archive
* gzip [file] — Compress file
* gunzip [file.gz] — Decompress file
* zip -r a.zip dir/ — Create zip
* unzip file.zip — Extract zip

# Text Processing and Scripting

* echo $HOME — Print environment variable
* env — List all environment variables
* alias ll='ls -l' — Create command alias
* history — Show command history
* !123 — Run command from history