

## Linux Cheat Sheet

### File System Navigation

Command	Description
pwd	Print working directory
ls -l	List files (detailed)
ls -a	List files (hidden)
cd <dir>	Change directory
cd ..	Go one level up
find /path -name file.txt	Search file

### File & Directory Management

Command	Description
touch file.txt	Create file
mkdir dir1	Create directory
rm file.txt	Delete file
rm -r dir1	Delete directory
cp file1 file2	Copy file
mv old new	Move/Rename file

### Permissions & Ownership

Command	Description
ls -l	View permissions
chmod 755 file.sh	Change permissions (rwxr-xr-x)
chown user:group file.txt	Change ownership
chmod 644 file.txt	rw-r--r-- (common file setting)

### Package Management (Debian/Ubuntu)

Command	Description
apt update && apt upgrade	Update system
apt install <package>	Install package
apt remove <package>	Remove package
dpkg -i file.deb	Install .deb package

### Networking

Command	Description
ifconfig / ip a	Show IP addresses
ping google.com	Test connectivity

netstat -tulnp	Show open ports
ss -tulnp	Modern replacement for netstat
traceroute host	Trace route to host

## User Management

Command	Description
whoami	Current user
id	Show user/group IDs
adduser username	Add new user
passwd username	Change password
su - user	Switch user
sudo command	Run command as root

## System Monitoring

Command	Description
top	Show processes (real-time)
htop	Improved process viewer
ps aux	List all processes
df -h	Disk usage
du -sh *	Folder sizes
free -h	Memory usage
uptime	System uptime & load

## File Viewing & Editing

Command	Description
cat file.txt	View file
less file.txt	Scroll through file
head -n 20 file.txt	Show first 20 lines
tail -f log.txt	Follow log live
nano/vim file.txt	Edit file

## Archiving & Compression

Command	Description
tar -cvf archive.tar files/	Create tar archive
tar -xvf archive.tar	Extract tar archive
gzip file.txt	Compress
gunzip file.txt.gz	Decompress
zip archive.zip file1 file2	Zip files
unzip archive.zip	Unzip files

## Searching & Filters

Command	Description
grep 'pattern' file.txt	Search text in file
grep -r 'pattern' /path	Recursive search
sort file.txt	Sort lines
uniq file.txt	Remove duplicates
wc -l file.txt	Count lines
history	Show command history

## Shortcuts

Command	Description
CTRL + C	Stop process
CTRL + Z	Suspend process
fg / bg	Resume process (foreground/background)
!!	Repeat last command
!n	Run nth command from history