Linux CLI Cheat Sheet

Linux · Arun R Kaushik · 2026-06-15

The commands sysadmins and network engineers actually use—file ops, process management, networking, and troubleshooting.

File & Directory Operations

```
ls -lah              # list all files with details
cd /path/to/dir      # change directory
pwd                  # print working directory
cp -r src/ dst/      # copy recursively
mv old new           # move/rename
rm -rf dir/          # remove directory (careful!)
find . -name "*.log" # find files by name
chmod 644 file       # set permissions
chown user:group file # change ownership
```

Viewing & Editing Files

```
cat file.txt         # print whole file
less file.txt        # paginated view
head -n 20 file.txt  # first 20 lines
tail -f /var/log/syslog # follow log live
grep -ri "error" .   # recursive case-insensitive search
```

Process Management

```
ps aux               # list all processes
top                  # live process viewer
htop                 # nicer live viewer (if installed)
kill -9 <pid>        # force kill a process
systemctl status nginx  # check service status
systemctl restart nginx # restart a service
journalctl -u nginx -f  # follow service logs
```

Networking

```
ip addr show         # show interfaces/IPs
ip route show        # show routing table
ss -tulpn            # show listening ports + processes
ping -c 4 host       # send 4 ICMP echo requests
traceroute host      # trace path to host
curl -I https://host # fetch headers only
dig host             # DNS lookup
nc -zv host 443      # test TCP port connectivity
```

Disk & Memory

```
df -h               # disk usage by filesystem
du -sh *            # size of files/dirs in current dir
free -h             # memory usage
lsblk               # list block devices
```

Permissions Cheat Sheet

Octal	Permission
7	rwx
6	rw-
5	r-x
4	r--
0	---

`chmod 755 file` → owner: rwx, group: r-x, others: r-x

Useful Shortcuts

Shortcut	Action
`Ctrl + C`	Kill current command
`Ctrl + Z`	Suspend current command
`Ctrl + R`	Search command history
`!!`	Repeat last command
`Tab`	Auto-complete

Archives

```
tar -czvf archive.tar.gz dir/   # create gzip archive
tar -xzvf archive.tar.gz        # extract gzip archive
```