

Linux – All Topics and Commands Reference Guide

1. Linux Basics

```
pwd - Show current directory  
ls, ls -l, ls -a - List files  
cd, cd .., cd ~ - Change directory  
whoami, date, man
```

2. File and Directory Management

```
touch file.txt, mkdir dir  
cp, mv, rm, rmdir  
cat, head, tail, less, more
```

3. File Permissions & Ownership

```
ls -l, chmod, chown, id
```

4. User & Group Management

```
useradd, passwd, usermod, deluser  
groupadd, groups, who, su
```

5. File Searching & Text Processing

```
find, locate, grep, sort, uniq, wc, cut, awk, sed
```

6. System Information

```
uname -a, hostname, uptime, top, free -h, df -h, du -sh *
```

7. Package Management

```
apt update/upgrade/install/remove  
yum install/remove  
dpkg -l, rpm -qa
```

8. Networking

```
ip addr, ifconfig, ping, curl, scp, ssh, netstat, ss
```

9. Process Management

```
ps -ef, top, kill, jobs, bg, fg
```

10. Disk & File System Management

```
df -h, du -sh, mount, umount, lsblk, fdisk -l
```

11. Archive & Compression

```
tar -cvf, tar -xvf, gzip, gunzip, zip, unzip
```

12. Shell Scripting

```
Variables, loops, conditions, functions  
Example:  
#!/bin/bash  
name="Faisel"  
if [ $name == "Faisel" ]; then echo "Hello, $name!"; fi
```

13. System Monitoring & Logs

```
top, htop, vmstat, journalctl, dmesg, /var/log/*
```

14. Security & Permissions

```
sudo, visudo, iptables -L, ufw enable/status
```

15. Cron Jobs & Scheduling

```
crontab -e, crontab -l  
Example: 0 1 * * * /path/to/script.sh
```

16. Advanced for DevOps

```
systemctl start/stop/enable/status  
journalctl -u service_name
```

17. Miscellaneous & Shortcuts

```
history, alias, echo $PATH, export VAR=value
```