Essential Top 100 Linux/Unix Commands

### Navigation and File Operations:

1. **ls**: List files and directories.
2. **cd**: Change directory.
3. **pwd**: Print the current working directory.
4. **mkdir**: Create a directory.
5. **rmdir**: Remove an empty directory.
6. **cp**: Copy files and directories.
7. **mv**: Move or rename files or directories.
8. **rm**: Remove files and directories.
9. **touch**: Create an empty file.
10. **cat**: Display file contents.
11. **nano** or **vi**: Text editors
12. **grep**: Search for text in files.
13. **find**: Search for files or directories.
14. **ln**: Create hard and soft links.

### User and Permission Management:

1. **sudo**: Execute commands as a superuser.
2. **su**: Switch user.
3. **useradd**: Add a new user.
4. **usermod**: Modify user properties.
5. **passwd**: Change the user password.
6. **chown**: Change file or directory ownership.
7. **chmod**: Change file/directory permissions.
8. **groups**: Display group memberships.

### System Information:

1. **top**: Display real-time system information.
2. **df**: Display disc space usage.
3. **du**: Display file/folder disc usage.
4. **free**: Display memory usage.
5. **uname**: Display system information.
6. **uptime**: Display system uptime.
7. **PS**: Display process status.

### Networking:

1. **ifconfig** or **ip**: Network configuration.
2. **ping**: Test network connectivity.
3. **netstat**: Network statistics
4. **ssh**: Securely access remote systems.
5. **scp**: Securely copy files between systems.
6. **wget** or **curl**: Download files from the web.
7. **nc**: Netcat, a networking utility.

### Package Management:

1. **apt** or **yum**: Package management (Debian or Red Hat).
2. **dpkg** or **rpm**: Direct package management.
3. **apt-get** or **dnf**: Command-line package handling

### Process Management:

1. **ps**: Display running processes.
2. **kill**: Terminate processes.
3. **pkill**: Terminate processes by name.
4. **Jobs**: List background jobs.
5. **bg** and **fg**: Background and foreground jobs

### Compression and Archiving:

1. **tar**: Create or extract tar archives.
2. **gzip**, **bzip2**: compress and decompress files.
3. **zip** and **unzip**: compress or decompress using ZIP.

### System Control:

1. **shutdown** and **reboot**: System shutdown/reboot
2. **Halt** and **power off**: Halt or power off the system.
3. **systemctl**: Control system services (systemd).

### File Permissions and Ownership:

1. **chown**: Change file or directory ownership.
2. **chmod**: Change file/directory permissions.

### Text Processing:

1. **grep**: Search for text in files.
2. **sed**: Stream editor for text manipulation.
3. **awk**: Text processing and pattern matching.

### Monitoring and Logging:

1. **tail**: Display the end of a file.
2. **dmesg**: Display kernel messages.
3. **journalctl**: Query the systemd journal.

### Disc Management:

1. **fdisk**: Disc partitioning utility
2. **mkfs**: Create a file system on a partition.
3. **mount** and **umount**: mount and unmount filesystems.

### Network Services:

1. **service**: Start/stop system services.
2. **systemctl**: Control systemd services.
3. **firewall-cmd** or **ufw**: Configure firewalls.

### Backup and Restore:

1. **rsync**: Remote file synchronisation
2. **dd**: Low-level disc copy tool.

### Environment Variables:

1. **echo**: Display messages.
2. **env**: Display environment variables.
3. **export**: Set environment variables.

### Cron Jobs:

1. **crontab**: Schedule tasks using cron.

### File Searching:

1. **Locate**: Find files quickly using a database.
2. **whereis**: Locate binary, source, and man page files.

### Disc Usage Analysis:

1. **du**: Display disc usage of files and directories.
2. **ncdu**: Interactive disc usage viewer

### Network Diagnostics:

1. **traceroute**: Trace the route to a host.
2. **netcat** or **nc**: Network utility for debugging

### Users and Groups:

1. **useradd**: Add a new user.
2. **usermod**: Modify user properties.
3. **groupadd**: Add a new group.
4. **groupmod**: Modify group properties.

### Printing:

1. **lp**: Print files.
2. **lpq**: Display print queue.
3. **lprm**: Remove print jobs.

### Disc Quotas:

1. **quota**: Display disc quotas for users.

### Date and Time:

1. **date**: Display the current date and time.
2. **cal**: Display a calendar.

### Process Prioritisation:

1. **nice**: Run a command with modified scheduling priority.
2. **Renice**: Change the priority of running processes.

### System Analysis:

1. **strace**: Trace system calls and signals.
2. **lsof**: List open files and network connections.

### Terminal Multiplexers:

1. **tmux** or **screen**: Terminal session managers.

### Remote Desktop:

1. **ssh**: Securely access remote systems.
2. **vncserver**: Set up a Virtual Network Computing (VNC) server.

### Hardware Information:

1. **lshw**: Display detailed hardware information.
2. **lspci** and **lsusb**: Display PCI and USB device information.

### System Updates:

1. **apt-get** or **yum**: Package updates and upgrades.
2. **dnf**: Red Hat's package manager for updates.

### Encryption and Hashing:

1. **gpg**: Encrypt and sign data.
2. **md5sum** and **sha256sum**: Compute checksums.

### Miscellaneous:

1. **clear** and **reset**: Clear the terminal screen.