# Basic Linux Commands

## File and Directory Commands

* Show current directory → pwd
* List files and directories → ls
* Change directory → cd <directory>
* Create a new directory → mkdir <directory\_name>
* Remove a directory → rmdir <directory\_name>
* Create a file → touch <filename>
* View file contents → cat <filename>
* Copy a file → cp <source> <destination>
* Move or rename a file → mv <source> <destination>
* Delete a file → rm <filename>

## Memory Usage Commands

* Check memory usage in MB → free -m
* Check memory usage in GB → free -g
* Check detailed memory usage → cat /proc/meminfo
* Show memory usage per process → ps aux --sort=-%mem | head
* Monitor memory usage live → vmstat 1

## CPU Usage Commands

* Check CPU usage → top
* Interactive CPU and process monitor → htop
* CPU usage summary → mpstat
* Check CPU details → lscpu
* Monitor CPU usage over time → sar -u 1 5

## Process Management Commands

* List running processes → ps aux
* List all processes in tree format → pstree
* Kill a process by PID → kill <PID>
* Force kill a process → kill -9 <PID>
* Kill a process by name → pkill <process\_name>
* Check a specific process by name → pgrep <process\_name>
* Monitor real-time processes → top
* Show process hierarchy → ps fax
* Check process details by PID → cat /proc/<PID>/status
* Find which process is using a port → netstat -tulnp | grep <port> or ss -tulnp | grep <port>

## User and System Information

* Switch user → su <username>
* Run command as root → sudo <command>
* Show current user → whoami
* Show active users → who
* Show system uptime → uptime

## Disk and Network Commands

* Show disk usage → df -h
* Show memory usage → free -m
* Find a file → find /path -name <filename>
* Search text in a file → grep 'text' <filename>
* Check network connectivity → ping <website>
* Show IP address → ifconfig (deprecated) or ip a
* Download files → wget <URL>

## File Compression Commands

* Extract tar files → tar -xvf <file.tar>
* Compress files to tar.gz → tar -czvf <file.tar.gz> <directory>

## Help Commands

* Show manual of a command → man <command>
* Show command history → history

## Sorting and Piping Commands

* Sort a file alphabetically → sort <filename>
* Sort a file in reverse order → sort -r <filename>
* Sort by numeric values → sort -n <filename>
* Sort and remove duplicates → sort -u <filename>
* Use pipe to filter output → command1 | command2
* Send output to a file → command > output.txt
* Append output to a file → command >> output.txt
* Use pipe to search text → command | grep 'text'

## Date and Time Commands

* Display current date and time → date
* Format date output → date '+%Y-%m-%d %H:%M:%S'
* Show yesterday’s date → date --date='yesterday'
* Show tomorrow’s date → date --date='tomorrow'
* Convert timestamp to date → date -d @<timestamp>