



### File Management

#### Basic Operations

<code>ls</code>	List directory contents.
<code>pwd</code>	Print working directory.
<code>cd &lt;directory&gt;</code>	Change directory.
<code>mkdir &lt;directory&gt;</code>	Create a new directory.
<code>rm &lt;file&gt;</code>	Remove a file.
<code>rmdir &lt;directory&gt;</code>	Remove an empty directory.
<code>cp &lt;source&gt; &lt;destination&gt;</code>	Copy a file or directory.
<code>mv &lt;source&gt; &lt;destination&gt;</code>	Move or rename a file or directory.
<code>touch &lt;file&gt;</code>	Create an empty file or update timestamp.

#### Advanced File Operations

<code>find &lt;directory&gt; -name &lt;pattern&gt;</code>	Find files matching a pattern.
<code>grep &lt;pattern&gt; &lt;file&gt;</code>	Search for a pattern in a file.
<code>head &lt;file&gt;</code>	Display the first few lines of a file.
<code>tail &lt;file&gt;</code>	Display the last few lines of a file.
<code>wc &lt;file&gt;</code>	Count words, lines, and bytes in a file.
<code>chmod &lt;permissions&gt; &lt;file&gt;</code>	Change file permissions.
<code>chown &lt;user&gt;:&lt;group&gt; &lt;file&gt;</code>	Change file owner and group.
<code>tar -czvf &lt;archive_name&gt;.tar.gz &lt;directory&gt;</code>	Compress a directory into a tar.gz archive.
<code>tar -xzvf &lt;archive_name&gt;.tar.gz</code>	Extract a tar.gz archive.

### Process Management

#### Process Information

<code>ps</code>	Display a snapshot of current processes.
<code>top</code>	Display dynamic real-time view of running processes.
<code>htop</code>	Interactive process viewer.
<code>pidof &lt;process_name&gt;</code>	Find the process ID of a running process.
<code>pgrep &lt;pattern&gt;</code>	Find processes by name or other attributes.
<code>pstree</code>	Display a tree of processes.

#### Process Control

<code>kill &lt;PID&gt;</code>	Terminate a process.
<code>kill -9 &lt;PID&gt;</code>	Forcefully terminate a process (SIGKILL).
<code>pkill &lt;pattern&gt;</code>	Kill processes by name or other attributes.
<code>nohup &lt;command&gt; &amp;</code>	Run a command immune to hangups, with output to nohup.out.
<code>bg</code>	Move a process to the background.
<code>fg</code>	Move a process to the foreground.
<code>jobs</code>	List active jobs.

### Networking

#### Network Information

<code>ifconfig</code>	Display network interface configuration.
<code>ip addr</code>	Display IP addresses.
<code>netstat -tulnp</code>	Display listening ports and associated processes.
<code>ss -tulnp</code>	Another utility to display socket statistics.
<code>ping &lt;host&gt;</code>	Test network connectivity.
<code>traceroute &lt;host&gt;</code>	Trace the route packets take to a host.
<code>dig &lt;domain&gt;</code>	DNS lookup utility.
<code>nslookup &lt;domain&gt;</code>	Query DNS servers to obtain domain name or IP address mapping.

#### Network Tools

<code>curl &lt;URL&gt;</code>	Transfer data from or to a server.
<code>wget &lt;URL&gt;</code>	Download files from the web.
<code>ssh &lt;user&gt;@&lt;host&gt;</code>	Secure Shell client for remote login.
<code>scp &lt;source&gt; &lt;destination&gt;</code>	Securely copy files between hosts.
<code>nc -l -p &lt;port&gt;</code>	Netcat listener on a port.
<code>nc &lt;host&gt; &lt;port&gt;</code>	Netcat client connecting to a host and port.

### System Information

#### Hardware Information

<code>lscpu</code>	Display CPU architecture information.
<code>lsblk</code>	List block devices.
<code>lspci</code>	List PCI devices.
<code>lsusb</code>	List USB devices.
<code>free -m</code>	Display memory usage.

#### System Status

<code>uname -a</code>	Display system information.
<code>uptime</code>	Show how long the system has been running.
<code>df -h</code>	Display disk space usage.
<code>du -sh &lt;directory&gt;</code>	Display the disk usage of a directory.
<code>w</code>	Show who is logged on and what they are doing.
<code>last</code>	Show listing of last logged in users.
<code>date</code>	Display the current date and time.