

Essential Linux Commands (Created by Farhan Ahmed)

Category	Command	Description	Example
Navigation and File Operations	`pwd`	Print current working directory.	`pwd`
	`ls`	List files and directories.	`ls -l`
	`cd`	Change current directory.	`cd /home/user/documents`
	`touch`	Create an empty file.	`touch myfile.txt`
	`mkdir`	Create a new directory.	`mkdir myfolder`
	`rm`	Remove files/directories.	`rm myfile.txt`
	`cp`	Copy files/directories.	`cp file1.txt file2.txt`
	`mv`	Move/rename files/directories.	`mv file1.txt /new_location/`
	`cat`	Display file contents.	`cat myfile.txt`
	`less`	View large files.	`less largefile.txt`
	`head`	Display file beginning.	`head myfile.txt`
	`tail`	Display file end.	`tail logfile.txt`
Text Processing and Searching	`tee`	Save output in a file	`ls -l tee output.txt`
	`grep`	Search for a specific pattern in a file.	`grep "pattern" file.txt`
	`sed`	Stream editor for text manipulation.	`sed 's/old/new/g' file.txt`
	`awk`	Text processing and pattern matching.	`awk '/pattern/ {print \$1}' file.txt`
	`sort`	Sort lines in a file.	`sort file.txt`
Archiving and Compression	`uniq`	Remove duplicate lines from a sorted file.	`sort file.txt uniq`
	`tar`	Compress and archive files.	`tar -czvf archive.tar.gz /folder`
	`gzip`	Compress files.	`gzip file.txt`
	`gunzip`	Decompress compressed files.	`gunzip file.txt.gz`
System and Process Management	`zip`	Create compressed zip archives.	`zip archive.zip file1.txt file2.txt`
	`ps`	List running processes.	`ps aux`
	`top`	Monitor system processes in real-time.	`top`
	`kill`	Terminate processes by their process ID.	`kill -9 PID`
	`df`	Display disk space usage.	`df -h`
	`du`	Display disk usage for a directory.	`du -sh /folder`
	`uptime`	Show system uptime.	`uptime`
	`who`	Display who is logged in.	`who`
Network and Connectivity	`ifconfig`	Display network interface information.	`ifconfig`
	`ping`	Test network connectivity.	`ping google.com`
	`ssh`	Connect to remote servers securely.	`ssh user@hostname`
File Permissions and Ownership	`scp`	Copy files securely between hosts.	`scp file.txt user@hostname:/path`
	`umask`	Set default file permissions.	`umask 022`
	`chgrp`	Change file group ownership.	`chgrp groupname file.txt`
	`passwd`	Change user password.	`passwd username`
System Information and Utility	`sudo`	Execute a command as a superuser.	`sudo command`
	`date`	Display the current date and time.	`date`
	`history`	Show command history.	`history`
	`alias`	Create command aliases.	`alias ll='ls -l'`
	`man`	Display manual pages for commands.	`man command`
	`uname`	Show system information.	`uname -a`
	`whereis`	Locate binary, source, and manual page file	`whereis command`