

Cheat Sheet: Overview of the Linux Operating System

File System Structure

Command	Description
/	Root directory, base of the file system.
/home	Contains user files and directories.
/etc	Configuration files.
/bin	Essential binaries (commands like ls, cp).
/var	Variable files, like logs and cache.
/tmp	Temporary files.

Navigation

Command	Description
pwd	Show current directory.
cd [directory]	Change to specified directory.
ls	List files in a directory.
tree	Display directories in a tree format (requires installation).

File Management

Command	Description
touch [filename]	Create a new empty file.
cp [source] [destination]	Copy files or directories.
mv [source] [destination]	Move or rename files.
rm [file]	Delete files (use -r for directories).
cat [file]	View contents of a file.

Text Editing

Command	Description
nano [file]	Open file in nano text editor.
vi [file]	Open file in vi editor.

Permissions

Command	Description
ls -l	Show permissions.
chmod [permissions] [file]	Change file permissions.

User Management

Command	Description
sudo adduser [username]	Create a user.
su [username]	Switch user.
sudo deluser [username]	Delete user.

Package Management

Command	Description
sudo apt update	Update repositories (Debian/Ubuntu systems).
sudo apt install [package]	Install packages (Debian/Ubuntu systems).

sudo apt remove [package]	Remove packages (Debian/Ubuntu systems).
sudo dnf install [package]	Install packages (Fedora/CentOS systems).

Network Commands

Command	Description
ip a / ifconfig	Check IP address (older systems may use ifconfig).
ping [host]	Ping a host to test connectivity.
dig [domain] / nslookup [domain]	Perform DNS lookup.
netstat / ss	Check open ports and network connections.



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