Basic Linux Commands with Examples

# pwd (Print Working Directory)

Purpose: Shows the current directory you are in.

Example:

pwd

Output: /home/user

# ls (List)

Purpose: Lists the files and directories in the current directory.

Example:

ls

Output: Desktop Documents Downloads Pictures

# cd (Change Directory)

Purpose: Changes the current directory.

Example:

cd Documents

Output: To move back one directory: cd ..

# touch

Purpose: Creates a new empty file.

Example:

touch newfile.txt

Output: Creates a file named newfile.txt.

# mkdir (Make Directory)

Purpose: Creates a new directory.

Example:

mkdir newfolder

Output: Creates a directory named newfolder.

# rm (Remove)

Purpose: Removes files or directories.

Example:

rm newfile.txt

Output: To remove a directory and its contents: rm -r newfolder

# cp (Copy)

Purpose: Copies files or directories.

Example:

cp file1.txt /home/user/Documents/

Output: Copies file1.txt to the Documents directory.

# mv (Move)

Purpose: Moves or renames files or directories.

Example:

mv file1.txt /home/user/Documents/

Output: Moves file1.txt to the Documents directory. To rename a file: mv oldname.txt newname.txt

# cat (Concatenate)

Purpose: Displays the contents of a file.

Example:

cat file1.txt

# nano or vim (Text Editors)

Purpose: Opens a text file in a terminal-based text editor.

Example:

nano file1.txt

Output: Or: vim file1.txt

# sudo (Super User Do)

Purpose: Runs a command with superuser (root) privileges.

Example:

sudo apt-get update

# chmod (Change Mode)

Purpose: Changes the permissions of a file or directory.

Example:

chmod 755 script.sh

Output: Sets read, write, and execute permissions for the owner, and read and execute for others.

# chown (Change Ownership)

Purpose: Changes the ownership of a file or directory.

Example:

sudo chown user:user file1.txt

# ps (Process Status)

Purpose: Displays information about running processes.

Example:

ps aux

# kill

Purpose: Terminates a process.

Example:

kill 1234

Output: Where 1234 is the process ID (PID).

# df (Disk Free)

Purpose: Shows disk space usage.

Example:

df -h

# du (Disk Usage)

Purpose: Shows the disk usage of files and directories.

Example:

du -h file1.txt

# grep

Purpose: Searches for a specific pattern in files.

Example:

grep 'search-term' file1.txt

# find

Purpose: Searches for files and directories in a directory hierarchy.

Example:

find /home/user -name 'file1.txt'

# tar (Tape Archive)

Purpose: Archives multiple files into a single file, and can also extract them.

Example:

tar -cvf archive.tar file1.txt file2.txt

Output: To extract: tar -xvf archive.tar

# wget

Purpose: Downloads files from the internet.

Example:

wget http://example.com/file.zip

# curl

Purpose: Transfers data from or to a server.

Example:

curl http://example.com

# ping

Purpose: Checks connectivity to a server.

Example:

ping google.com

# top

Purpose: Displays real-time system processes and resource usage.

Example:

top

# man (Manual)

Purpose: Displays the manual page for a command.

Example:

man ls

Output: Shows the manual for the ls command.