**30 Essential Linux Commands with Explanations**

# ls

Lists directory contents.

# cd

Changes the current directory.

# pwd

Prints the current working directory.

# touch

Creates an empty file or updates the timestamp of an existing file.

# cp

Copies files or directories.

# mv

Moves or renames files or directories.

# rm

Removes files or directories.

# mkdir

Creates a new directory.

# rmdir

Removes an empty directory.

# chmod

Changes file or directory permissions.

# chown

Changes file owner and group.

# cat

Concatenates and displays file content.

# less

Views file content one screen at a time.

# head

Displays the first few lines of a file.

# tail

Displays the last few lines of a file.

# grep

Searches for patterns in files.

# find

Searches for files in a directory hierarchy.

# df

Displays disk space usage.

# du

Displays file and directory disk usage.

# top

Displays active processes in real-time.

# ps

Reports a snapshot of current processes.

# kill

Terminates a process by PID.

# wget

Retrieves files from the web.

# curl

Transfers data from or to a server.

# nano

A simple text editor.

# vim

A powerful text editor.

# sudo

Executes a command as another user, usually root.

# apt-get

Handles packages for Debian-based systems.

# yum

Handles packages for Red Hat-based systems.

# tar

Archives files.

# zip

Compresses files into a zip archive.