# Commonly Used Bash Commands for Linux OS

**File and Directory Management**

`ls` - List directory contents.

`cd` - Change directory.

`pwd` - Print the current working directory.

`mkdir` - Create a new directory.

`rmdir` - Remove an empty directory.

`rm` - Remove files or directories.

`cp` - Copy files or directories.

`mv` - Move or rename files or directories.

**File Viewing and Editing**

`cat` - Concatenate and display file content.

`nano` / `vi` - Edit files.

`more` - View file content one screen at a time.

`less` - View file content with navigation support.

`head` - Display the first few lines of a file.

`tail` - Display the last few lines of a file.

`grep` - Search for patterns in files.

**File Permissions and Ownership**

`chmod` - Change file permissions.

`chown` - Change file ownership.

`ls -l` - View file permissions and ownership.

**Process Management**

`ps` - Display running processes.

`top` / `htop` - Monitor system processes in real time.

`kill` - Terminate a process by PID.

`killall` - Terminate processes by name.

## Networking

`ping` - Test network connectivity.

`ifconfig` / `ip` - View or configure network interfaces.

`curl` - Transfer data from a URL.

`wget` - Download files from the web.

## System Information

`uname` - Display system information.

`df` - Display disk space usage.

`du` - Display directory size.

`free` - Display memory usage.

## Search

`find` - Search for files and directories.

`locate` - Quickly find files.

## Archiving and Compression

`tar` - Archive files.

`zip` / `unzip` - Compress and decompress files.

`gzip` / `gunzip` - Compress and decompress files using gzip.

## Permissions and Execution

`sudo` - Run commands with superuser privileges.

`whoami` - Show the current user.

`history` - Display the command history.

**Package Management**

- For Ubuntu/Debian:

  `apt update` - Update package lists.

  `apt install package_name` - Install a package.

  `apt remove package_name` - Remove a package.

- For Red Hat/CentOS:

  `yum update` - Update packages.

  `yum install package_name` - Install a package.

**Other Useful Commands**

`echo` - Print messages or variables.

`env` - Display environment variables.

`alias` - Create command shortcuts.

`exit` - Exit the current session.