Basic Linux commands

🧭 File & Directory Navigation

pwd — Print Working Directory → Shows the current directory path you are in.

ls — List→ Displays all files and directories in the current directory.
Example:

```
ls -l (detailed list), ls -a (shows hidden files)
```

cd — Change Directory→ Moves you from one directory to another.

Example:

```
cd /home/user/Desktop
```

mkdir — Make Directory→ Creates a new directory.

Example:

```
mkdir myfolder
```

rmdir — Remove Directory→ Deletes an empty directory.

Example:

```
rmdir oldfolder
```

📁 File Management

touch — Create File→ Creates a new empty file or updates an existing file's timestamp.

Example:

```
touch file.txt
```

cp — Copy→ Copies files or directories.

Example:

```
cp file1.txt file2.txt
```

mv — Move/Rename→ Moves or renames files or directories.

Example:

```
mv file.txt /home/user/Documents
```

rm — Remove→ Deletes files or directories.

Example:

```
rm file.txt, rm -r folder (recursive delete)
```

cat — Concatenate and Display→ Displays file content or joins multiple files.

Example:

```
cat file.txt
```

🔍 Viewing & Searching

less — View File One Page at a Time→ Displays file content page by page for easy reading.

head — Show Beginning of File→ Displays the first 10 lines of a file.

Example:

```
head -n 5 file.txt
```

tail — Show End of File→ Displays the last 10 lines of a file.

Example:

```
tail -f logfile.txt (live view)
```

grep — Search Text→ Searches for patterns in files.

Example:

```
grep "error" logfile.txt
```

find — Search Files & Directories→ Locates files and directories by name or pattern.

Example:

```
find /home -name "*.txt"
```

⚙️ System Information

uname — System Information→ Shows OS and kernel details.

Example:

```
uname -a
```

df — Disk Free→ Displays disk space usage.

Example:

```
df -h
```

du — Disk Usage→ Shows the size of files and directories.

Example:

```
du -sh /home/user
```

top — Task Manager→ Displays running processes and resource usage in real time.

whoami — Who Am I→ Prints the current logged-in username.

👩‍💻 User & Permission Management

sudo — Superuser Do→ Runs commands with administrative privileges.

Example:

```
sudo apt update
```

chmod — Change Mode→ Changes file or directory permissions.

Example:

```
chmod 755 script.sh

```

chown — **Change Owner→ Changes file or directory ownership.**

Example:

```
chown user:user file.txt
```

🌐 Networking & Package Management

ping — **Test Network Connection→ Checks if a host or server is reachable.**

Example:

```
ping google.com
```

apt-get / yum — **Package Manager Commands→ Install, update, or remove software packages.**

Example:

```
Debian/Ubuntu: sudo apt-get install nginx
RHEL/CentOS: sudo yum install nginx
```