# Linux Commands

## 1. Basic Navigation Commands

### pwd

Print Working Directory  
Shows the full path of the current directory.  
Example:  
  
pwd  
  
Output:  
/home/username

### ls

List Directory Contents  
Shows files and folders in the current directory.  
Options:  
ls -a # includes hidden files  
ls -l # long format  
ls -lh # human-readable sizes

### cd

Change Directory  
Examples:  
cd ~  
cd ..  
cd /etc

### clear

Clear the terminal screen

## 2. File and Directory Operations

### touch

Create an empty file  
Example:  
touch file.txt

### mkdir

Make directory  
Examples:  
mkdir myfolder  
mkdir -p parent/child/grandchild

### cp

Copy files and folders  
Examples:  
cp source.txt target.txt  
cp -r folder1 folder2

### mv

Move or rename files  
Examples:  
mv old.txt new.txt  
mv file.txt /path/to/folder/

### rm

Remove files and folders  
Examples:  
rm file.txt  
rm -r foldername  
rm -rf foldername

## 3. Viewing and Editing Files

### cat

View full file content  
Example:  
cat file.txt

### less

Scrollable view for large files  
Example:  
less file.txt

### head

View first N lines  
Examples:  
head file.txt  
head -n 5 file.txt

### tail

View last N lines  
Examples:  
tail file.txt  
tail -n 5 file.txt  
tail -f file.txt

### nano

Terminal file editor  
Example:  
nano file.txt

### notepad

Windows GUI editor (Git Bash)  
Example:  
notepad file.txt

## 4. Permissions and Ownership

### ls -l

Shows detailed file permissions  
Example:  
ls -l

### chmod

Change permissions  
Symbolic:  
chmod u+x file.sh  
chmod g-w file.txt  
chmod o+r file.txt  
  
Numeric:  
chmod 755 file.sh  
chmod 747 file.txt

### chown

Change ownership  
Examples:  
chown newuser file.txt  
chown user:group file.txt

### chmod +x

Make file executable  
Example:  
chmod +x script.sh  
./script.sh