# Learn Linux Shell

## Anatomy of a Command

A Linux command typically consists of three parts:

1. **Command**: The action you want to perform.
2. **Options**: Flags or modifiers to change the behavior of the command.
3. **Arguments**: Additional information required by the command to execute.

An example command structure looks like this:

command [options] [arguments]

Now, let’s delve into some essential commands:

## The ls Command

The ls command is used to list directory contents. It displays files and directories in the current directory by default.

ls [options] [directory]

**Options**:

* -l: Long format, displaying detailed information.
* -a: Include hidden files and directories starting with a dot.
* -h: Human-readable sizes.

Example:

ls -l -a

## The cd Command

The cd command is used to change directories.

cd [directory]

Example:

cd Documents

## The mkdir Command

The mkdir command is used to create directories.

mkdir [directory\_name]

Example:

mkdir Documents

## The touch Command

The touch command is used to create empty files or update the timestamps of existing files.

touch [file\_name]

Example:

touch example.txt

## The rm Command

The rm command is used to remove files or directories.

rm [options] [file/directory]

**Options**:

* -r: Recursively remove directories and their contents.
* -f: Force removal without confirmation.

Example:

rm -rf directory\_to\_remove

## The cat Command

The cat command is used to concatenate files and display the content of files.

cat [file\_name]

Example:

cat example.txt

## The chmod Command

The chmod command is used to change file permissions.

chmod [options] mode file

**Options**:

* +: Adds the specified permissions to the file.
* -: Removes the specified permissions from the file.

Example:

chmod +x script.sh

## The curl Command

The curl command is used to transfer data to or from a server, supporting various protocols like HTTP, HTTPS, FTP, etc.

curl [options] [URL]

**Options**:

* -O: Save the downloaded file with its original name.
* -o [file]: Save the downloaded file with a specified name.
* -L: Follow redirects.

Example:

curl -O https://example.com/file.txt

## The chmod Command

The chmod command is used to change file permissions.

chmod [options] mode file

**Options**:

* +: Adds the specified permissions to the file.
* -: Removes the specified permissions from the file.
* =: Sets the permissions exactly as specified.