

# Linux commands:

- HOW TO SEARCH
- HOW TO VIEW CREATE DELETE FILES AND DIRECTORIES
- HOW TO NAVIGATE
- HOW TO COMPRESS
- HOW TO CREATE MODIFY DELETE USERS AND GROUPS

## • Searching

Search for a specific pattern in a file with **grep**:

```
grep [pattern] [file_name]
```

Recursively search for a pattern in a directory:

```
grep -r [pattern] [directory_name]
```

Find all files and directories related to a particular name:

```
locate [name]
```

List names that **begin with a specified character [a]** in a specified location **[/folder/location]** by using the **find** command:

```
find [/folder/location] -name [a]
```

See files larger than a specified size **[+100M]** in a folder:

```
find [/folder/location] -size [+100M]
```

## • File Commands

List files in the directory:

```
ls
```

List all files (shows hidden files):

```
ls -a
```

Show [directory](#) you are currently working in:

```
pwd
```

Create a new [directory](#):

```
mkdir [directory]
```

Remove a [file](#):

```
rm [file_name]
```

**Remove a directory** recursively:

```
rm -r [directory_name]
```

**Recursively remove a directory** without requiring confirmation:

```
rm -rf [directory_name]
```

[Copy the contents of one file](#) to another file:

```
cp [file_name1] [file_name2]
```

**Recursively copy the contents of one file** to a second file:

```
cp -r [directory_name1] [directory_name2]
```

**Rename** **[file\_name1]** to **[file\_name2]** with the command:

```
mv [file_name1] [file_name2]
```

Create a [symbolic link](#) to a file:

```
ln -s /path/to/[file_name] [link_name]
```

Create a **new file** using [touch](#):

```
touch [file_name]
```

**Show the contents** of a file:

```
more [file_name]
```

or use the [cat command](#):

```
cat [file_name]
```

Append file contents to another file:

```
cat [file_name1] >> [file_name2]
```

Display the **first 10 lines** of a file with [head command](#):

```
head [file_name]
```

Show the **last 10 lines** of a file:

```
tail [file_name]
```

- **Directory Navigation**

Move **up one level** in the directory tree structure:

```
cd ..
```

[Change directory to \\$HOME](#):

```
cd
```

**Change location** to a specified directory:

```
cd /chosen/directory
```

- **File Compression**

Archive an existing file:

```
tar cf [compressed_file.tar] [file_name]
```

Extract an archived file:

```
tar xf [compressed_file.tar]
```

Create a **gzip compressed tar file** by running:

```
tar czf [compressed_file.tar.gz]
```

**Compress** a file with the **.gz** extension:

```
gzip [file_name]
```

## File Transfer

Copy a file to a server directory securely using the [Linux scp command](#):

```
scp [file_name.txt] [server/tmp]
```

**Synchronize** the contents of a directory **with a backup directory** using the [rsync command](#):

```
rsync -a [/your/directory] [/backup/]
```

## • Users and Groups

See details about the **active users**:

```
id
```

Show **last system logins**:

```
last
```

Display who is **currently logged into the system** with the [who command](#):

```
who
```

Show which users are **logged in** and **their activity**:

```
w
```

**Add a new group** by typing:

```
groupadd [group_name]
```

Add a **new user**:

```
adduser [user_name]
```

Add a **user to a group**:

```
usermod -aG [group_name] [user_name]
```

Temporarily **elevate user privileges** to superuser or root using the [sudo command](#):

```
sudo [command_to_be_executed_as_superuser]
```

**Delete** a user:

```
userdel [user_name]
```

[Modify user information](#) with:

```
usermod
```

[Change directory group](#):

```
chgrp [group-name] [directory-name]
```