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**Linux Commands**

ls # List files and directories

ls -l # List with details

ls -a # Show hidden files

pwd # Present working directory

uname -a # Show system details

uptime # Show system uptime

df -h # Check disk space

free -m # Check memory usage

ls -lah # List files with details and Check If myfolder Exists and Is a Directory

mkdir [foldername ] eg: mkdir myfolder # Create a directory

cd myfolder # Change directory

rm -r myfolder # Delete directory

cat file.txt # View file contents

tac file.txt # View file contents in reverse

head -n 10 file.txt # Show first 10 lines

tail -n 10 file.txt # Show last 10 lines

**Create a New File Inside the Directory**

You can create a file in different ways:

**Using touch (empty file)**

touch myfile.txt

(Creates an empty file named myfile.txt.)

**Using echo (Add content to a file)**

echo "Hello, this is my first file!" > myfile.txt

(Creates myfile.txt and adds text inside it.)

**Using cat (Manually write content)**

cat > myfile.txt

(Type your content, then press Ctrl + D to save.)

**Using nano (Text editor)**

nano myfile.txt

(Type content, then press Ctrl + X, then Y, then Enter to save.)

**Verify the File Exists**

ls -lah

(This will show myfile.txt inside myfolder.)

**View the File Content**

cat myfile.txt

Create multiple files:

touch file1.txt file2.txt file3.txt

Append text to an existing file:

echo "Adding more text!" >> myfile.txt

Move a file into the directory:

mv myfile.txt myfolder/

**Verify That myfolder Is a Directory**

ls -ld myfolder

**Final Check – to check what files are there in your folder**

ls myfolder/

If you want to **see the contents of a file inside a directory**:

**1. List Files Inside the Directory**

To check what files are inside a directory, run:

ls -lah myfolder/

(This will show all files inside myfolder.)

**2. View a File Inside a Directory**

If you know a file (e.g., myfile.txt) is inside myfolder, you can view its contents in different ways:

**Method 1: cat (Print the Entire File)**

cat myfolder/myfile.txt

Find:

The find command can be used to find files or folders matching a particular search pattern. It

searches recursively.

find . -name '\*.txt'

**ln**

It’s used to create links. It’s like a pointer to another file. A file that points to another file.

We have 2 types of links:

Hard links

Soft links

**Hard links**

Hard links are rarely used. They have a few limitations: you can’t link to directories, and you can’t link to external filesystems

A hard link is created using

ln <original> <link>

eg: ln banana.txt anotherbanana.txt

Now any time you edit any of those files, the content will be updated for both.

If you delete the original file, the link will still contain the original file content, as that's not removed until there is one hard link pointing to it.

**Soft links**

Soft links are different. They are more powerful as you can link to other filesystems and to directories, but when the original is removed, the link will be broken.

ln -s <original> <link>

Now if you delete the original file, the links will be broken, and the shell will tell you "No such file or

directory" if you try to access it.

**open**

The open command lets you open a file using this syntax:

open <filename>

**touch**

You can create an empty file using the touch command:

touch apple

If the file already exists, it opens the file in write mode, and the timestamp of the file is updated.

**tar**

The tar command is used to create an archive, grouping multiple files in a single file.

Its name comes from the past and means tape archive. Back when archives were stored on tapes. This command creates an archive named archive.

tar with the content of file1 and file2 : tar -cf archive.tar file1 file2

The c option stands for create. The f option is used to write to file the archive.

To extract files from an archive in the current folder, use:

tar -xf archive.tar

the x option stands for extract and to extract them to a specific directory use:

tar -xf archive.tar -C directory

You can also just list the files contained in an archive:

tar -tf archive.tar

**cat**

prints a file's content to the standard output:

cat file

You can print the content of multiple files:

cat file1 file2

and using the output redirection operator > you can concatenate the content of multiple files into a new file:

cat file1 file2 > file3

Using >> you can append the content of multiple files into a new file, creating it if it does not exist: cat file1 file2 >> file3

When watching source code files it's great to see the line numbers, and you can have cat print them using the -n option:

cat -n file1

less

The less command is one it shows you the content stored inside a file, in a nice and interactive UI. Usage: less <filename>.

Once you are inside a less session, you can quit by pressing q .

You can navigate the file contents using the up and down keys, or using the space bar and b to navigate page by page.

You can also jump to the end of the file pressing G and jump back to the start pressing g .

You can search contents inside the file by pressing / and typing a word to search. This searches forward. You can search backwards using the ? symbol and typing a word.