

**TRAINING**

# TRAINING PLAN



- INTRODUCTION TO LINUX
- FORENSICS AND OSINT
- CRYPTOGRAPHY
- WEB EXPLOITATION
- REVERSE ENGINEERING
- BINARY EXPLOITATION

# LINUX for CTFs

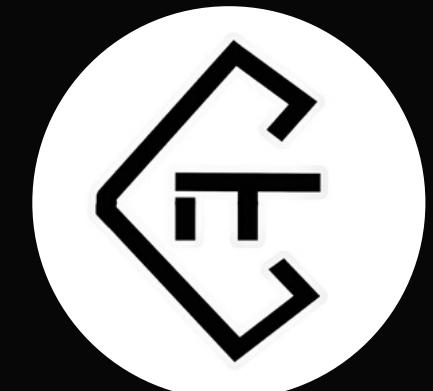


INTRODUCTION TO SOME BASIC AND USEFUL LINUX COMMANDS

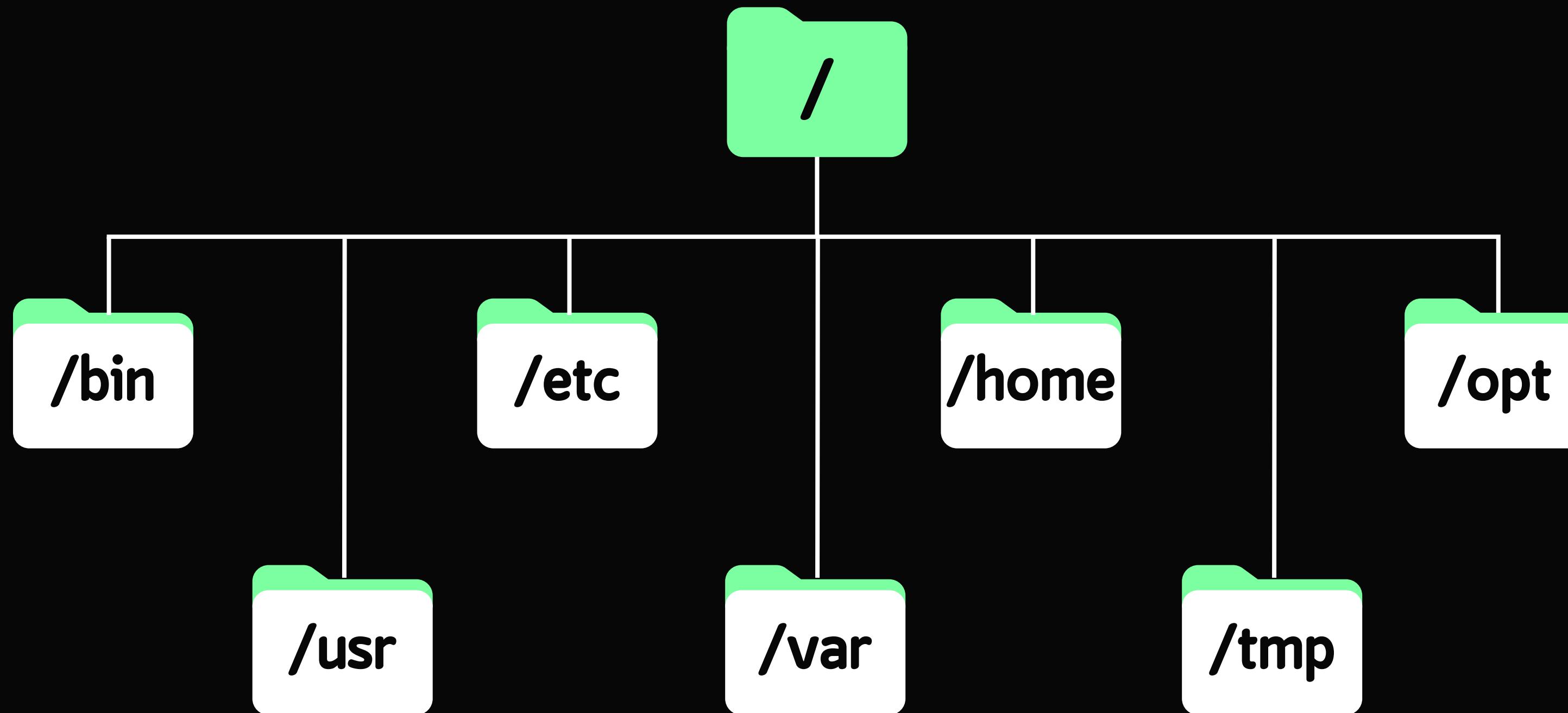
Made by :

JEBBARI BADR

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# linux directory structure



# absolute and relative paths

absolute path: complete path of a file or a directory from /

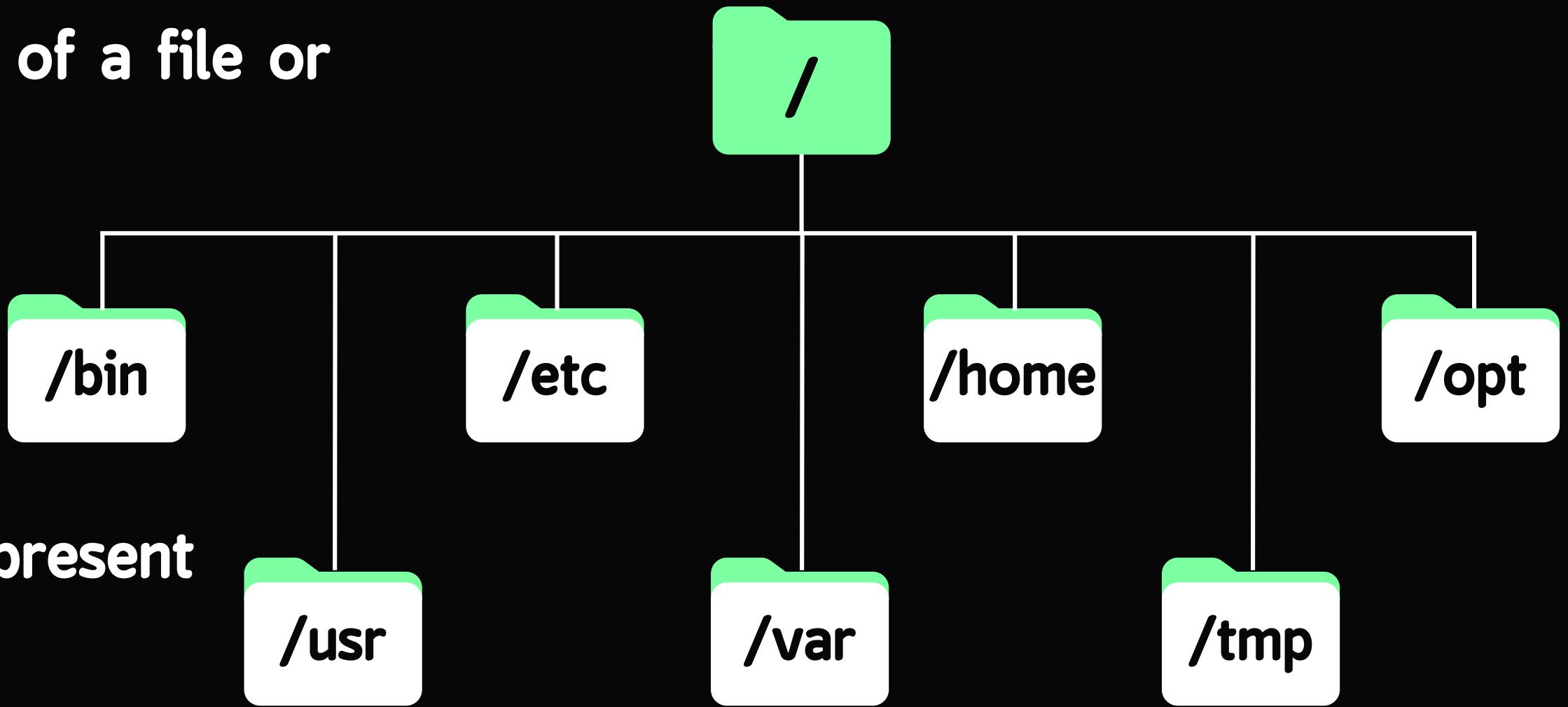
examples:

- /home/kali/Downloads
- /usr/bin

relative path: relative to the present working directory

examples (from /home/kali):

- ./Downloads
- ../../etc



- . refers to the current directory
- .. refers to the parent directory

**#pwd**

**print working directory**

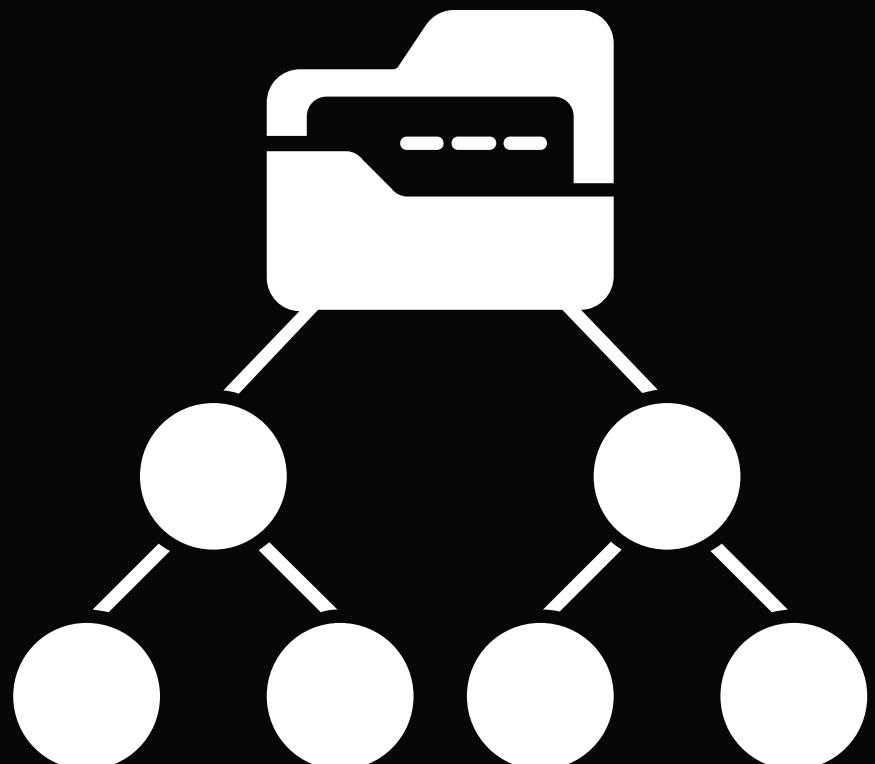
shows absolute path to the current directory

**#cd**

**change directory**

It enables you to change the current directory or, in other words, to navigate to another folder from your PC

- cd <relative or absolute path to a directory>



# #ls

# list all files in a directory

The ls command allows a user to list files or directories from the CLI.

add:

- a to list hidden files in a directory
- l to see permissions of the files
- R to list subdirectories recursively

- ls -1
- ls -al
- ls [path]

examples:

- ls -al
- ls -l /home/kali



# #touch/rm

# create/remove a file

The touch command creates an empty file

The rm command removes a file

you can also use :

rm -r to remove a directory

use care when dealing with spaces



# #mkdir/rmdir

# create/remove a directory

The **mkdir** command creates a directory

The **rmdir** command removes a directory



# #cat

# concatenate

**reads data from a file and gives their content as output**

**you should also know:**

**-n to view contents of a file preceding with line numbers**

**you can add a spacebar between file names to open  
multiple files at once.**

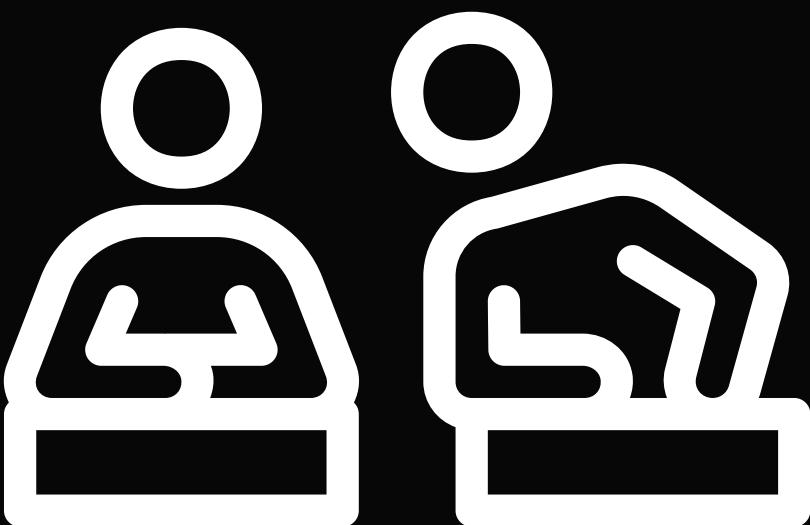


# #cp

# copy a file or a directory

This command is used to copy files or group of files or directory

- cp <file to copy> <destination>
- cp <files separated by space> <path to dir>

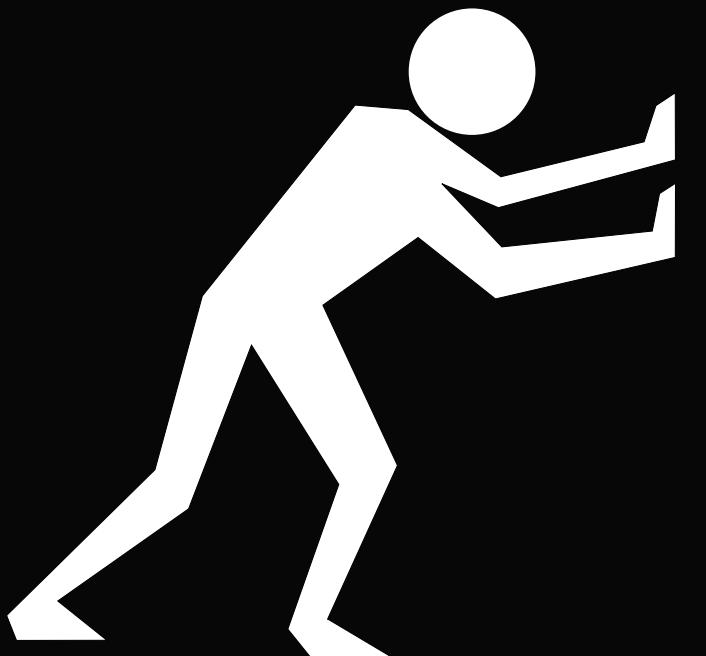


# #mv

# move a file to a directory

The mv command moves files and directories from one directory to another.

- renaming a file: `mv <file> <renamed_file>`
- moving files to another directory:  
`mv <file | files separated with spaces> <path to a dir>`



# <, >, |

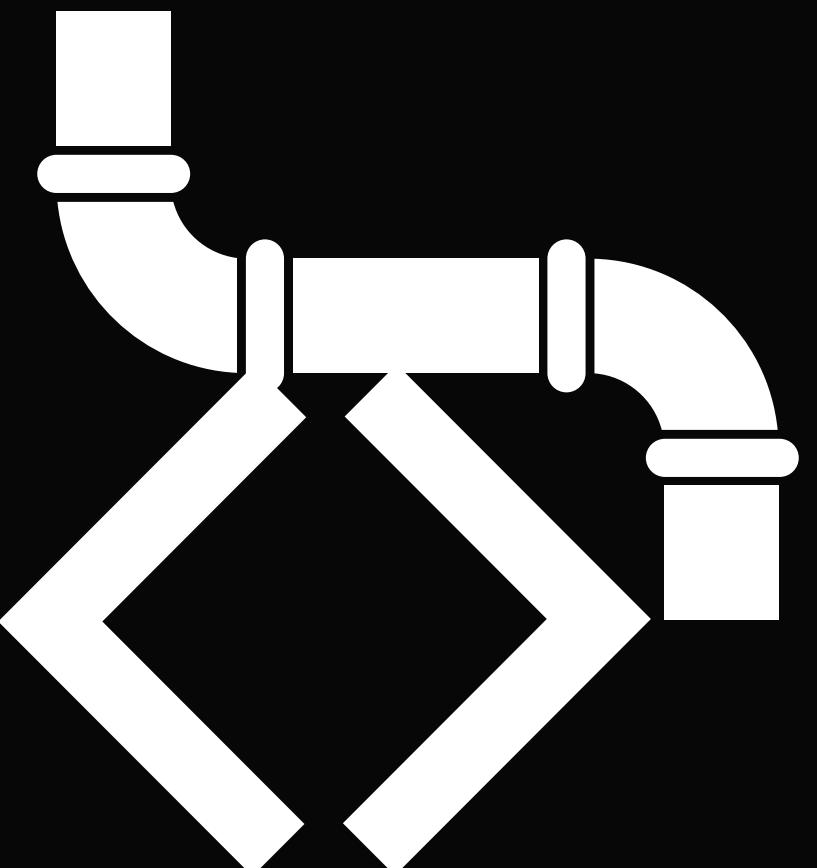
more than just a symbol

They are called redirection operators

You can use them to either redirect the input to the command or the output from the command.

(remember when we said you can create files using cat command, in fact you can use any command to create files)

- < : redirect file to command
- > : redirect output to a file
- | : send the output of a command to the input of another command



#man

the elder scrolls

man command in Linux is used to display the user manual  
of any command that we can run on the terminal.  
This is the most important command you need to know.



# more commands

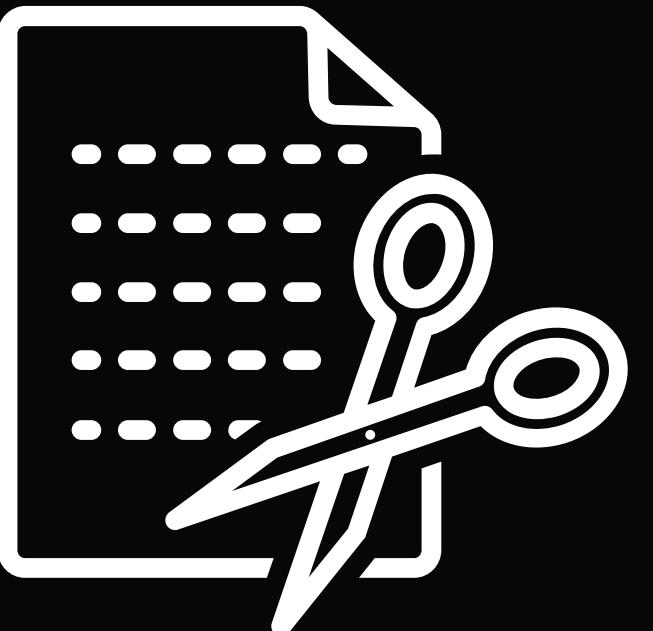
use man

- echo <text>: print text into the terminal.
  - grep <pattern>: filter text according to the given input parameter.
  - sort: self-explanatory.
  - uniq: show only unique entries
  - head: read first lines of a file.
  - tail: read last lines of a file.
  - more: scroll through the output.
  - clear: clear the terminal (ctrl+l).
  - cut: remove sections from each line of files
  - tr: translate or delete characters
- } use -n <number> to specify the number  
of lines to show

# #nano/vim

# text editor

allows you to create and edit existing files.  
each one of them has its specific way of operating so mastering one  
is enough.



# challenges

- print the contents of your current directory with one file/folder per line.
- grep the contents of all files in a directory using one command.
- use grep to print the filenames that contain a certain keyword in a directory then sort them.
- replace all occurrences of the letter "a" with the letter "e" using tr in the following line: "i hate apples."
- use echo to create an empty file

great websites

<https://cmdchallenge.com/>

<https://overthewire.org/wargames/bandit/>

