Linux Fundamentals Workshop Cheat Sheet

System Information

Ubuntu Server 20.04.3 LTS

Commands

ls – lists files or directories

man – the manual page

clear – clears the screen

history – shows a list of recently used commands

apropos – searches the manual pages for keywords

whoami – prints the name of the current user

id – find user and group names and numeric identifiers

hostname – shows the system's network or DNS name

uname – prints information about the system

ip – configure and view network information

pwd – print the working directory

cd – change directory

mkdir – make a directory

touch – create an empty file

cp – copy a file or directory

mv – move a file or directory

rm – remove/delete a file or directory

cat – outputs or reads the contents of a file

echo – displays text passed to it as an argument

nano – a command line text editor

find – locate files on the system

grep – searches a file for text

sudo – allows a user to run commands as a privileged user

chown – change the ownership of a file or directory

chmod – change the read, write, and execute permissions of a file or directory

Commands List

All the commands I'll be using throughout the presentation in order.

Using Commands

ls

man ls

clear

history

apropos 'working directory'

whoami

id

hostname

uname

ip (requires an option - try 'a')

pwd

man uname

uname -r

man id

id -g

Moving Around

pwd

ls

mkdir new_folder

cd new_folder

mkdir newer_folder

cd newer_folder

pwd

cd sloth_facts

cd ..

cd ..

cd linux_fun/sloth_facts

cd /home/ubuntu/linux_fun/coffee

Fun with Files

touch sloth_fact_1

cp sloth_fact_1 sloth_fact_2

ls

mv sloth_fact_1 /home/ubuntu/linux_fun/sloth_facts/sloth_fact_1

mv sloth_fact_2 /home/ubuntu/linux_fun/sloth_facts/sloth_fact_2

cd /home/ubuntu/linux_fun/sloth_facts/

ls

rm -r /home/ubuntu/linux_fun/test

cd ..

ls

cd sloth_facts

cat sloth_fact_1

echo hello

echo All sloths are handsome and soft > sloth_fact_1

cat sloth_fact_1

echo Without sloths there would be no acocados >> sloth_fact_1

cat sloth_fact_1

nano sloth_fact_2

Sloths can move faster in water than on land

ctrl + x

Y

Finding Things

find . -name sloth_fact_1

find . -name passwd

find / -name passwd

find / -name passwd 2> /dev/null

cat /etc/passwd

cat /etc/passwd | grep ubuntu

find / -name shadow 2> /dev/null

cat /etc/shadow

Permissions

ls -al

ls -l /etc/shadow

sudo cat /etc/shadow

cd ~

cd important_stuff

touch super_secret_file_1

touch super_secret_file_2

ls -l

chown root super_secret_file_1

sudo !!
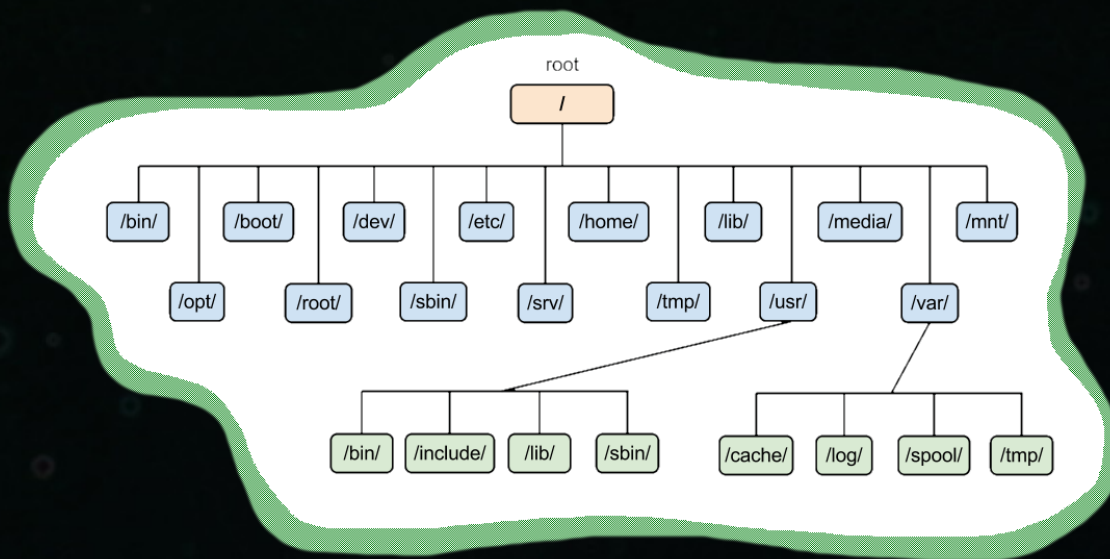
ls -l

sudo chmod u+x,g-w,o-r super_secret_file_1

ls -l

chmod 740 super_secret_file_2

Linux Filesystem

Important Files

dev/null – a 'pseudo-device' that doesn't correspond to hardware. It produces no output, and discards all input sent to it, except to report the write operation succeeded.

/etc/bashrc – stores configuration data relevant to the shell. For example, the prompt can be customized or command aliases can be set.

/etc/hosts – translates hostnames or domain names to an IP address.

/etc/passwd – A text file containing a list of the system's accounts.

/etc/shadow – Stores encrypted passwords for a system's accounts.

Workshop Filesystem