

CYSE 270: Linux System for Cybersecurity

Assignment 2

Instructions:

1. Execute the correct commands for all the steps listed below.
2. Take screenshots after completing each step.
3. Submit your screenshots in a single Word or PDF file.
4. Clearly label each screenshot with the corresponding step number.

Steps:

1. Open a terminal window.
2. Display your current working directory.
3. Using an absolute pathname, switch to the /etc directory.
4. Using a relative pathname, move to the /etc/skel directory.
5. Using a relative pathname, move up one directory.
6. List the files in the current directory.
7. Perform a “long display” listing of the files in the current directory.
8. List all the files in the current directory that begin with the letter s.
9. Run the command that will determine the type of contents in the /etc/group file.
10. Display only the last five lines of the /etc/group file.
11. Execute the command to return to your home directory.
12. Make a directory named data in the current directory.
13. Copy the /etc/passwd file into the data directory.
14. Copy the /etc/ppp directory into the current directory (and ignore any “Permission denied” error messages).
15. Rename the ppp directory that is located in the current directory to peers.
16. Execute the command (ls) to verify the change in the name of the directory.
17. Create a new empty file named test in the data directory.

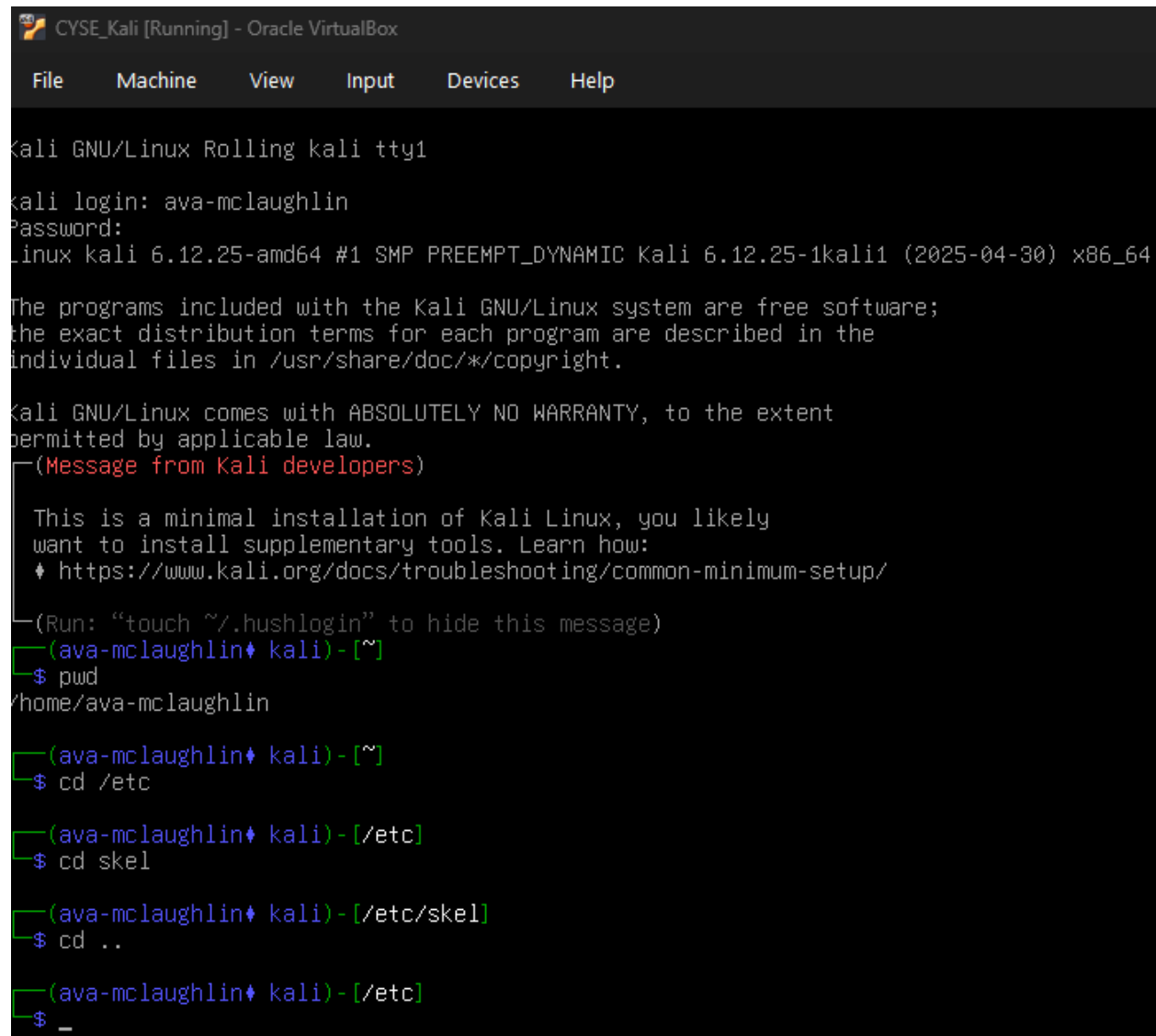
Ava McLaughlin

18. Delete the data/passwd file.

19. Delete the peers directory.

20. Re-execute the ls command.

Steps 1-5:



```
Kali GNU/Linux Rolling kali tty1
kali login: ava-mclaughlin
Password:
Linux kali 6.12.25-amd64 #1 SMP PREEMPT_DYNAMIC Kali 6.12.25-1kali1 (2025-04-30) x86_64

The programs included with the Kali GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Kali GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
--(Message from Kali developers)

This is a minimal installation of Kali Linux, you likely
want to install supplementary tools. Learn how:
♦ https://www.kali.org/docs/troubleshooting/common-minimum-setup/

--(Run: "touch ~/.hushlogin" to hide this message)
(ava-mclaughlin@kali)~$ pwd
/home/ava-mclaughlin

(ava-mclaughlin@kali)~$ cd /etc

(ava-mclaughlin@kali)/etc$ cd skel

(ava-mclaughlin@kali)/etc/skel$ cd ..

(ava-mclaughlin@kali)/etc$ _
```

Step 6:

```
(ava-mclaughlin@kali) - [/etc]
$ ls
adduser.conf          cron.daily            firefox-esr           initramfs-tools
alternatives          cron.hourly           fonts                 inputrc
apparmor              cron.monthly          fstab                 insserv.conf.d
apparmor.d            crontab               gai.conf              issue
apt                   cron.weekly           groff                 issue.net
bash.bashrc           cron.yearly           group                 kernel
bash_completion       dbus-1                group-                kernel-img.conf
bash_completion.d     debconf.conf          grub.d                keyutils
bindresvport.blacklist debian_version         gshadow               ldap
binfmt.d              default               gshadow-              ld.so.cache
ca-certificates       deluser.conf          gss                   ld.so.conf
ca-certificates.conf  depmod.d             host.conf             ld.so.conf.d
chromium              dhcp                  hostname              libaudit.conf
cloud                 dhcpcd.conf           hosts                 lightdm
console-setup         dpkg                  hosts.allow           locale.alias
credstore             e2scrub.conf          hosts.deny            locale.conf
credstore.encrypted  environment           idmapd.conf          locale.gen
cron.d                ethertypes            init.d                localtime

(ava-mclaughlin@kali) - [/etc]
$ _
```

Step 7 (Unable to scroll up, command used was ls -l):

```

drwxr-xr-x 2 root root 4096 Aug 26 20:13 rc3.d
drwxr-xr-x 2 root root 4096 Aug 26 20:13 rc4.d
drwxr-xr-x 2 root root 4096 Aug 26 20:13 rc5.d
drwxr-xr-x 2 root root 4096 Aug 26 20:13 rc6.d
drwxr-xr-x 2 root root 4096 Aug 26 20:12 rcS.d
-rw-r--r-- 1 root root 1787 Apr 13 06:23 request-key.conf
drwxr-xr-x 2 root root 4096 Aug 26 20:12 request-key.d
-rw-r--r-- 1 root root 23 Aug 26 20:10 resolv.conf
lrwxrwxrwx 1 root root 13 Dec 18 2024 rmt -> /usr/sbin/rmt
-rw-r--r-- 1 root root 911 Oct 17 2022 rpc
drwxr-xr-x 3 root root 4096 Aug 26 20:11 runit
drwxr-xr-x 4 root root 4096 Aug 26 20:10 security
drwxr-xr-x 2 root root 4096 Aug 26 20:10 selinux
-rw-r--r-- 1 root root 12990 Mar 15 18:55 services
-rw-r----- 1 root shadow 775 Aug 26 20:13 shadow
-rw-r----- 1 root shadow 667 Aug 26 20:13 shadow-
-rw-r--r-- 1 root root 154 Aug 26 20:12 shells
drwxr-xr-x 5 root root 4096 Aug 26 20:11 skel
drwxr-xr-x 4 root root 4096 Aug 26 20:12 ssh
drwxr-xr-x 4 root root 4096 Aug 26 20:11 ssl
-rw-r--r-- 1 root root 28 Aug 26 20:13 subgid
-rw-r--r-- 1 root root 0 Aug 26 20:09 subgid-
-rw-r--r-- 1 root root 28 Aug 26 20:13 subuid
-rw-r--r-- 1 root root 0 Aug 26 20:09 subuid-
-rw-r--r-- 1 root root 4337 May 4 11:48 sudo.conf
-r--r----- 1 root root 1714 May 4 11:48 sudoers
drwxr-xr-x 2 root root 4096 Aug 26 20:11 sudoers.d
-rw-r--r-- 1 root root 9804 May 4 11:48 sudo_logsrvd.conf
drwxr-xr-x 2 root root 4096 Aug 26 20:10 supercat
drwxr-xr-x 3 root root 4096 Aug 26 20:11 sv
drwxr-xr-x 2 root root 4096 Aug 26 20:10 sysctl.d
drwxr-xr-x 5 root root 4096 Aug 26 20:11 systemd
drwxr-xr-x 2 root root 4096 Aug 26 20:10 terminfo
drwxr-xr-x 2 root root 4096 Apr 7 13:39 tmpfiles.d
-rw-r--r-- 1 root root 1259 Mar 31 05:25 ucf.conf
drwxr-xr-x 4 root root 4096 Aug 26 20:10 udev
drwxr-xr-x 3 root root 4096 Aug 26 20:11 ufw
drwxr-xr-x 2 root root 4096 Aug 26 20:10 update-motd.d
lrwxrwxrwx 1 root root 16 Aug 26 20:10 vconsole.conf -> default/keyboard
drwxr-xr-x 2 root root 4096 Aug 26 20:10 vim
-rw-r--r-- 1 root root 4942 Mar 8 01:23 wgetrc
drwxr-xr-x 4 root root 4096 Aug 26 20:11 X11
-rw-r--r-- 1 root root 681 Feb 21 2025 xattr.conf
drwxr-xr-x 3 root root 4096 Aug 26 20:10 xdg
drwxr-xr-x 2 root root 4096 Aug 26 20:11 xrdp
drwxr-xr-x 2 root root 4096 Aug 26 20:11 zsh
-rw-r--r-- 1 root root 460 Jan 20 2023 zsh_command_not_found

(ava-mclaughlin@kali)-[/etc]
$ ls -l

```

Steps 8-9:

```
(ava-mclaughlin@kali)-[/etc]
$ ls -d s*
security  services  shadow-  skel     ssl      subgid-  subuid-  sudoers  sudo_logsrvd.conf  sv          systemd
selinux   shadow    shells   ssh      subgid   subuid   sudo.conf  sudoers.d  supercat  sysctl.d

(ava-mclaughlin@kali)-[/etc]
$ file /etc/group
/etc/group: ASCII text

(ava-mclaughlin@kali)-[/etc]
$
```

Step 10:

```
(ava-mclaughlin@kali)-[/etc]
$ cat /etc/group | tail -5
messagebus:x:991:
tcpdump:x:102:
_ssh:x:103:
ava-mclaughlin:x:1000:
vboxsf:x:104:
```

Steps 11-12:

```
(ava-mclaughlin@kali)-[/etc]
$ cd /home

(ava-mclaughlin@kali)-[/home]
$ mkdir data
mkdir: cannot create directory 'data': Permission denied

(ava-mclaughlin@kali)-[/home]
$ cd ~

(ava-mclaughlin@kali)-[~]
$ mkdir data

(ava-mclaughlin@kali)-[~]
$ ls
data
```

Steps 13-14:

```
(ava-mclaughlin@kali)-[~]
$ cp /etc/passwd data

(ava-mclaughlin@kali)-[~]
$ cp /etc/ppp .
cp: cannot stat '/etc/ppp': No such file or directory

(ava-mclaughlin@kali)-[~]
$
```

Steps 15-16:

```
(ava-mclaughlin@kali) - [~]  
$ mkdir ppp  
  
(ava-mclaughlin@kali) - [~]  
$ mv ppp peers  
  
(ava-mclaughlin@kali) - [~]  
$ ls  
data  peers
```

Steps 17-18:

```
(ava-mclaughlin@kali) - [~]  
$ cd data  
  
(ava-mclaughlin@kali) - [~/data]  
$ touch test  
  
(ava-mclaughlin@kali) - [~/data]  
$ rm data/passwd  
rm: cannot remove 'data/passwd': No such file or directory  
  
(ava-mclaughlin@kali) - [~/data]  
$ rm /etc/passwd  
rm: remove write-protected regular file '/etc/passwd'?  
  
(ava-mclaughlin@kali) - [~/data]  
$ ls  
passwd  test  
  
(ava-mclaughlin@kali) - [~/data]  
$ rm passwd  
  
(ava-mclaughlin@kali) - [~/data]  
$ ls  
test
```

Steps 19-20:

```
(ava-mclaughlin@kali) - [~/data]
$ cd ~

(ava-mclaughlin@kali) - [~]
$ ls
data  peers

(ava-mclaughlin@kali) - [~]
$ rm peers
rm: cannot remove 'peers': Is a directory

(ava-mclaughlin@kali) - [~]
$ rmdir peers

(ava-mclaughlin@kali) - [~]
$ ls
data
```