

CYSE 270: Linux System for Cybersecurity

Assignment 2 Prescott Kowalski

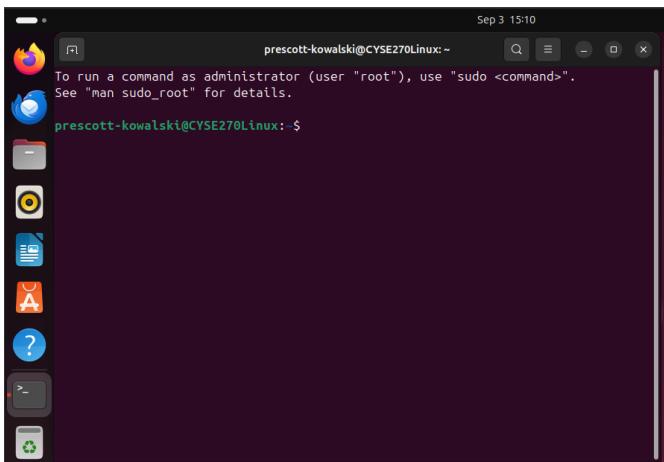
Total: 100 Points

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.

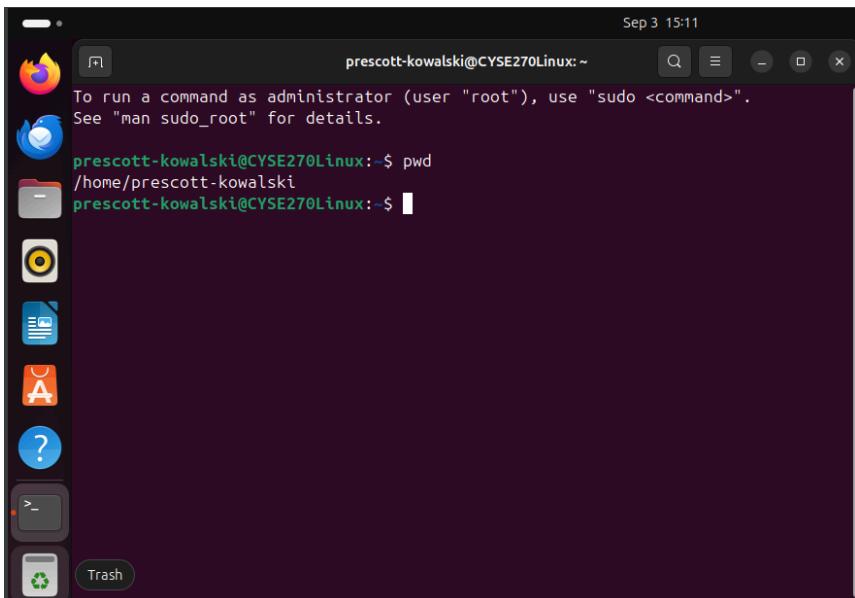
Steps:

1. Open a terminal window.



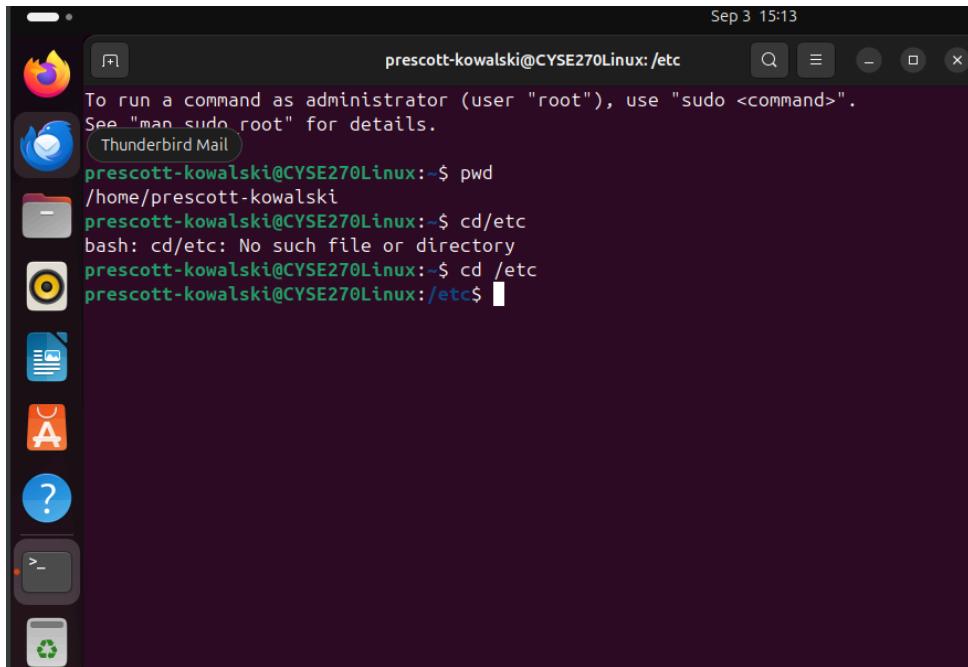
```
prescott-kowalski@CYSE270Linux:~$
```

2. Display your current working directory.



```
prescott-kowalski@CYSE270Linux:~$ pwd
/home/prescott-kowalski
prescott-kowalski@CYSE270Linux:~$
```

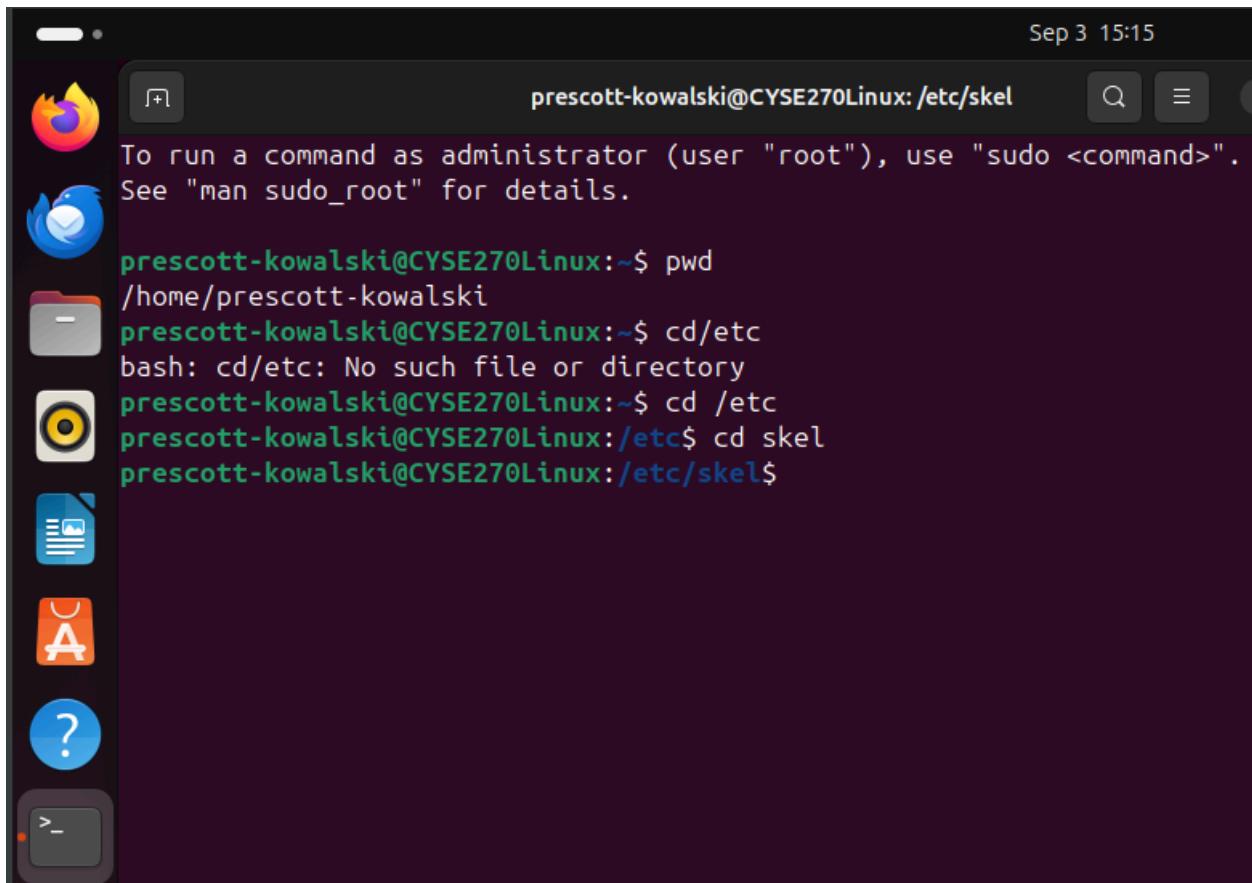
3. Using an absolute pathname, switch to the /etc directory.



A screenshot of a Linux desktop environment. On the left is a dock with icons for a browser (Firefox), file manager (Nautilus), terminal (GNOME Terminal), messaging (Thunderbird), and system settings. The terminal window is open and shows the following command-line session:

```
prescott-kowalski@CYSE270Linux: /etc
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
prescott-kowalski@CYSE270Linux:~$ pwd
/home/prescott-kowalski
prescott-kowalski@CYSE270Linux:~$ cd/etc
bash: cd/etc: No such file or directory
prescott-kowalski@CYSE270Linux:~$ cd /etc
prescott-kowalski@CYSE270Linux:/etc$
```

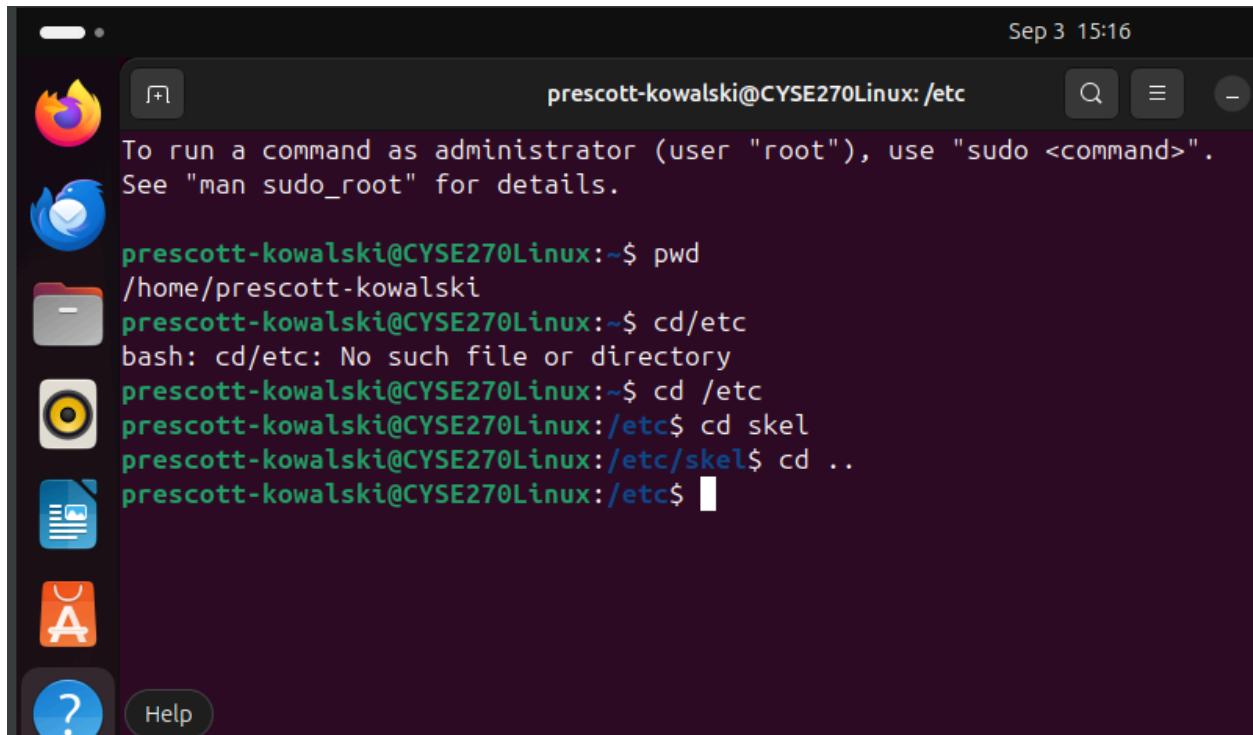
4. Using a relative pathname, move to the /etc/skel directory.



A screenshot of a Linux desktop environment, identical to the one above, showing the terminal window with the following command-line session:

```
prescott-kowalski@CYSE270Linux: /etc/skel
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
prescott-kowalski@CYSE270Linux:~$ pwd
/home/prescott-kowalski
prescott-kowalski@CYSE270Linux:~$ cd/etc
bash: cd/etc: No such file or directory
prescott-kowalski@CYSE270Linux:~$ cd /etc
prescott-kowalski@CYSE270Linux:/etc$ cd skel
prescott-kowalski@CYSE270Linux:/etc/skel$
```

5. Using a relative pathname, move up one directory.



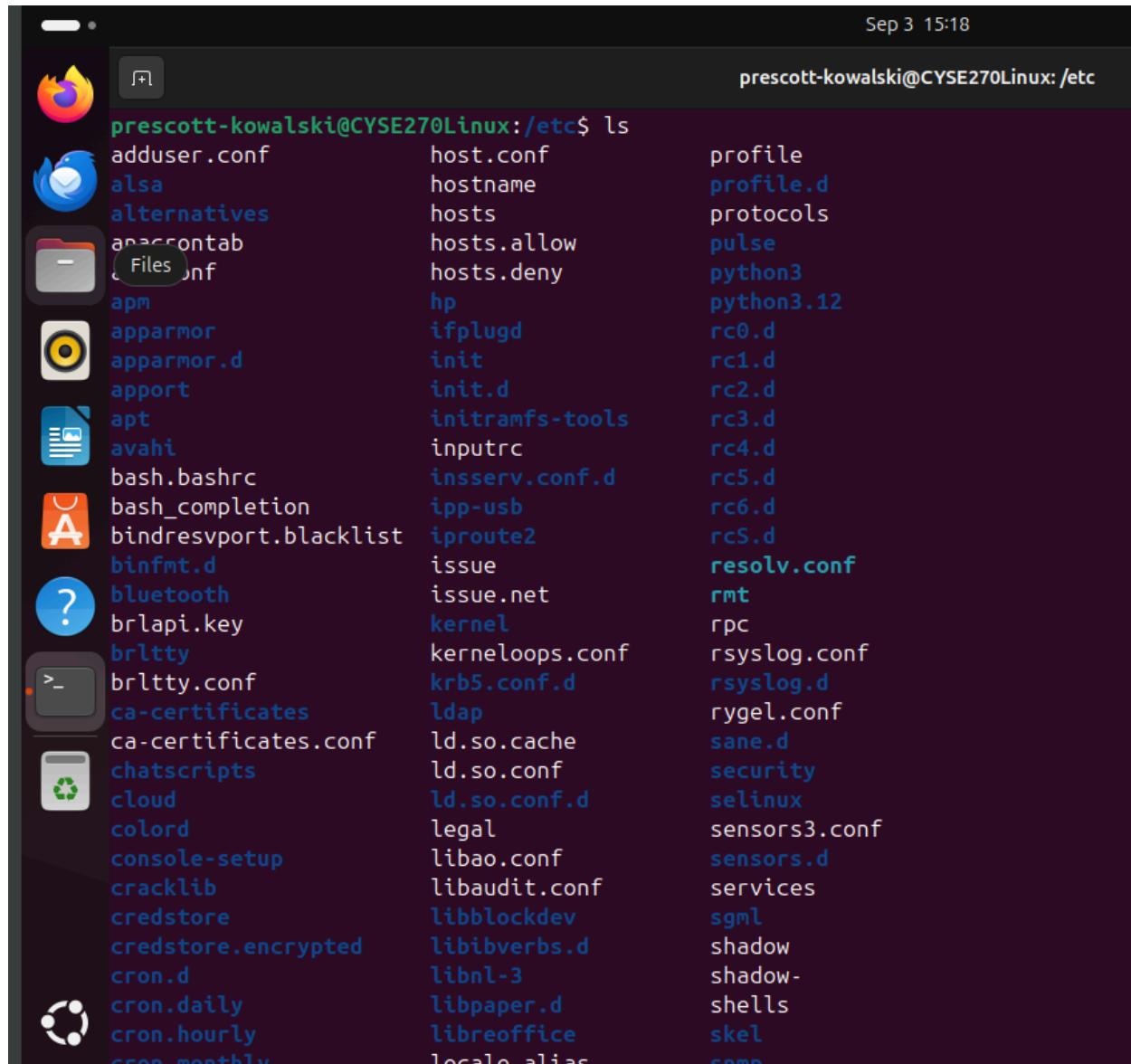
A screenshot of a Linux terminal window. The title bar shows the user is on the 'etc' directory of a machine named 'CYSE270Linux'. The date and time 'Sep 3 15:16' are also visible. The terminal window contains the following text:

```
prescott-kowalski@CYSE270Linux: /etc
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

prescott-kowalski@CYSE270Linux:~$ pwd
/home/prescott-kowalski
prescott-kowalski@CYSE270Linux:~$ cd/etc
bash: cd/etc: No such file or directory
prescott-kowalski@CYSE270Linux:~$ cd /etc
prescott-kowalski@CYSE270Linux:/etc$ cd skel
prescott-kowalski@CYSE270Linux:/etc/skel$ cd ..
prescott-kowalski@CYSE270Linux:/etc$
```

The terminal window has a dark background with light-colored text. The left side features a vertical dock with icons for various applications like a browser, file manager, terminal, and help. A 'Help' button is also present at the bottom left of the dock.

6. List the files in the current directory.



```
prescott-kowalski@CYSE270Linux: /etc$ ls
adduser.conf          host.conf          profile
alsa                  hostname          profile.d
alternatives          hosts             protocols
anacrontab           hosts.allow       pulse
[Files].conf          hosts.deny       python3
apm                  hp                 python3.12
apparmor             ifplugd          rc0.d
apparmor.d            init              rc1.d
apport                init.d           rc2.d
apt                  initramfs-tools rc3.d
avahi                inputrc          rc4.d
bash.bashrc           insserv.conf.d rc5.d
bash_completion       ipp-usb           rc6.d
bindresvport.blacklist iproute2          rc5.d
binfmt.d             issue             resolv.conf
bluetooth            issue.net        rmt
brlapi.key            kernel            rpc
brltty               kerneloops.conf rsyslog.conf
brltty.conf           krb5.conf.d     rsyslog.d
ca-certificates       ldap              rygel.conf
ca-certificates.conf ld.so.cache      sane.d
chatscripts          ld.so.conf       security
cloud                ld.so.conf.d    selinux
colord               legal             sensors3.conf
console-setup        libao.conf       sensors.d
cracklib             libaudit.conf   services
credstore            libblockdev     sgml
credstore.encrypted  libibverbs.d   shadow
cron.d               libnl-3          shadow-
cron.daily           libpaper.d     shells
cron.hourly          libreoffice    skel
cron.monthly          locale.alias   snmp
```

7. Perform a “long display” listing of the files in the current directory.

Sep 3 15:19

```
prescott-kowalski@CYSE270Linux:/etc$ ls -l
total 1144
-rw-r--r-- 1 root      root      3444 Jul  5 2023 adduser.conf
drwxr-xr-x  3 root      root      4096 Aug  5 12:50 als
drwxr-xr-x  2 root      root      4096 Aug 27 15:36 alternatives
-rw-r--r-- 1 root      root      335 Apr  8 2024 anacrontab
-rw-r--r-- 1 root      root      433 Apr  8 2024 apg.conf
drwxr-xr-x  5 root      root      4096 Aug  5 12:50 apt
drwxr-xr-x  2 root      root      4096 Aug  5 12:50 apparmor
drwxr-xr-x  9 root      root      4096 Aug 27 15:31 apt
drwxr-xr-x  3 root      root      4096 Aug  5 12:51 avahi
drwxr-xr-x  9 root      root      2319 Mar 31 2024 bash.bashrc
-rw-r--r-- 1 root      root      45 Jan 24 2020 bash_completion
drwxr-xr-x  2 root      root      367 Aug  2 2022 bindresvport.blacklist
drwxr-xr-x  2 root      root      4096 Apr 19 2024 binfmt.d
drwxr-xr-x  2 root      root      4096 Aug  5 12:51 bluetooth
-rw-r----- 1 root      root      33 Aug  5 12:53 brlapi.key
drwxr-xr-x  7 root      root      4096 Aug  5 12:51 brltty
drwxr-xr-x  1 root      root      30571 Mar 30 2024 brltty.conf
drwxr-xr-x  3 root      root      4096 Aug  5 12:48 ca-certificates
drwxr-xr-x  1 root      root      6288 Aug  5 12:48 ca-certificates.conf
drwxr-xr-x  2 root      root      4096 Aug 27 15:39 cloud
drwxr-xr-x  5 root      root      4096 Aug 27 15:37 colord
drwxr-xr-x  2 colord    root      4096 Aug 27 15:34 console-setup
drwxr-xr-x  2 root      root      4096 Aug  5 12:51 cracklib
drwxr----- 2 root      root      4096 Apr 19 2024 credstore
drwxr----- 2 root      root      4096 Apr 19 2024 credstore.encrypted
drwxr-xr-x  2 root      root      4096 Aug  5 12:51 cron.d
```

8. List all the files in the current directory that begin with the letter s.

Sep 3 15:20

```
prescott-kowalski@CYSE270Linux:/etc$ ls s*
drwxr-xr-x  2 root      root      4096 Aug  5 12:53 xml
-rw-r--r--  1 root      root      460 Jan 20 2023 zsh_command_not_found
sensors3.conf  shadow      shells      subgid-      subuid-      sudoers      sysctl.conf
services      shadow-     subgid     subuid      sudo.conf    sudo_logsvrd.conf

sane.d:
abaton.conf      coolscan2.conf      escl.conf      kvs1025.conf      pie.conf      sp15c.conf
agfafocus.conf   coolscan3.conf      fujitsu.conf   leo.conf      pieusb.conf   st400.conf
airscan.conf     coolscan.conf      genesys.conf   lexmark.conf  pixma.conf    stv680.conf
apple.conf       dc210.conf       gphoto2.conf   ma1509.conf   plustek.conf  tamarack.conf
artec.conf       dc240.conf       gt68xx.conf   matsushita.conf  qciam.conf    teco1.conf
artec_eplus48u.conf dc25.conf       hp3900.conf   microtek2.conf  ricoh.conf    teco2.conf
avision.conf     dell1600n_net.conf  hp4200.conf   mustek.conf   rts8891.conf  test.conf
bh.conf          dll.conf       hp.conf       mustek.conf   s9036.conf    u12.conf
canon630u.conf   dmc.conf       hpsj5s.conf   mustek_pp.conf  saned.conf    umax1220u.conf
canon.conf       epjitsu.conf    hs2p.conf    mustek_usb.conf sceptre.conf  umax.conf
canon_dr.conf    epson2.conf    ibm.conf     nec.conf      sharp.conf    umax_pp.conf
canon_lide70.conf epson.conf     kodakao.conf  net.conf      sm3840.conf  xerox_mfp.conf
canon_pp.conf    epson.conf     kodak.conf    p5.conf      snapscan.conf

security:
access.conf      faillock.conf    limits.conf   namespace.conf  namespace.init  pam_env.conf  pwquality.conf  time.conf
capability.conf  group.conf     limits.d      namespace.d    opasswd       pwhistory.conf sepermit.conf

selinux:
semanage.conf

sensors.d:

sgml:
```

9. Run the command that will determine the type of contents in the /etc/group file.

```
logind.conf    networkd.conf  pstore.conf  sleep.conf  
prescott-kowalski@CYSE270Linux:/etc$ file /etc/group  
/etc/group: ASCII text
```

10. Display only the last five lines of the /etc/group file.

```
prescott-kowalski@CYSE270Linux:/etc$ tail -n 5 /etc/group  
nm-openvpn:x:122:  
lxd:x:123:  
gamemode:x:986:  
gnome-initial-setup:x:985:  
prescott-kowalski:x:1000:
```

11. Execute the command to return to your home directory.

```
prescott-kowalski:x:1000:  
prescott-kowalski@CYSE270Linux:/etc$ cd  
prescott-kowalski@CYSE270Linux:~$
```

12. Make a directory named data in the current directory.

```
prescott-kowalski@CYSE270Linux:~$ mkdir data  
prescott-kowalski@CYSE270Linux:~$
```

13. Copy the /etc/passwd file into the data directory.

```
prescott-kowalski@CYSE270Linux:~$ cp /etc/passwd data/  
prescott-kowalski@CYSE270Linux:~$
```

14. Copy the /etc/ppp directory into the current directory (and ignore any “Permission denied” error messages).

```
prescott-kowalski@CYSE270Linux:~$ cp -r /etc/ppp . 2>/dev/null  
prescott-kowalski@CYSE270Linux:~$ mv ppp peers
```

15. Rename the ppp directory that is located in the current directory to peers.

```
prescott-kowalski@CYSE270Linux:~$ cp -r /etc/ppp . 2>/dev/null  
prescott-kowalski@CYSE270Linux:~$ mv ppp peers
```

16. Execute the command (ls) to verify the change in the name of the directory.

```
prescott-kowalski@CYSE270Linux:~$ ls  
data  Desktop  Documents  Downloads  Music  peers
```

17. Create a new empty file named test in the data directory.

```
prescott-kowalski@CYSE270Linux:~$ touch data/test  
prescott-kowalski@CYSE270Linux:~$
```

18. Delete the data/passwd file.

```
prescott-kowalski@CYSE270Linux:~$ rm data/passwd
prescott-kowalski@CYSE270Linux:~$
```

19. Delete the peers directory.

```
prescott-kowalski@CYSE270Linux:~$ rm -r peers
prescott-kowalski@CYSE270Linux:~$
```

20. Re-execute the ls command.

```
prescott-kowalski@CYSE270Linux:~$ ls
data Desktop Documents Downloads Music Pictures Public snap Templates Videos
prescott-kowalski@CYSE270Linux:~$
```