

CYSE 270: Linux System for Cybersecurity

Assignment 2

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.

number. **Steps:**

1. Open a terminal window.



2. Display your current working directory.



```
lgut@kali: ~  
└─$ pwd  
/home/lgut  
└─$
```

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



```
lgut@kali: ~  
└─$ pwd  
/home/lgut  
└─$ cd /etc  
└─$
```

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

```
lgut@kali: /etc/skel
┌───┐
│ File Actions Edit View Help │
├───┘
┌───┐
│ (lgut@kali) ~ │
├───┘
└─┬─┘
  $ pwd
/home/lgut

┌───┐
│ (lgut@kali) ~ │
├───┘
└─┬─┘
  $ cd /etc

┌───┐
│ (lgut@kali) /etc │
├───┘
└─┬─┘
  $ cd skel

┌───┐
│ (lgut@kali) /etc/skel │
├───┘
└─┬─┘
  $
```

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

```
lgut@kali: /etc
┌───┐
│ File Actions Edit View Help │
├───┘
┌───┐
│ (lgut@kali) ~ │
├───┘
└─┬─┘
  $ pwd
/home/lgut

┌───┐
│ (lgut@kali) ~ │
├───┘
└─┬─┘
  $ cd /etc

┌───┐
│ (lgut@kali) /etc │
├───┘
└─┬─┘
  $ cd skel

┌───┐
│ (lgut@kali) /etc/skel │
├───┘
└─┬─┘
  $ cd ..

┌───┐
│ (lgut@kali) /etc │
├───┘
└─┬─┘
  $
```

6. List the files in the current directory.

```

File Actions Edit View Help
---(lgut@kali)~/etc/
--- ls
address.conf      fireeye-usr      libiccid_defa.plist  paperspecs      tmp
alternatives     fonts           libel-3             passwd          speech-dispatcher
apache2          freetds         libpaper.d         passwd-        rsyslog
apparmor         fstab           lightdm            perl           ssh
apparmor.d       fuse.conf       lightdm            plymouth       sshd
apt              gai.conf        locale.alias       polkit-1       sshsplit
arp-wan          gcclosure       locale.conf        postdirsql     strongswan.conf
avahi            gconf           locale.gen         postgresql     strongswan.d
bash             gnome-system-tools  logcheck         powershell-empire  subgid
bash_completion  gnome-shell     login.defs         proftpd        subuid
bash_completion.d  gnopish        logrotate.conf    profile.d      subversion
bindresvport.blacklist  gprofng.rc     logrotate.d       protocols     sudo.conf
binfmt.d         group          macho              machine-id     sudoers
bluetooth       group.d        magic             mairc          sudoers.d
ca-certificates  gshadow        manpath.config    matplotlib     sudo_logsrvd.conf
ca-certificates.conf  gss            manpages          mime.types     superstat
chattr           gshadow        mawk              miniconda     sysctl.d
chromium        gss            miredo.conf       miredo         systemd
chromium.d      gss            mozilla            modules        systemd
cifs-utils      gss            mozilla.d         modules-load.d  systemd
cloud           gss            mozilla.d         modules-load.d  systemd
colord          gss            mozilla.d         mozilla        systemd
console-setup  gss            mozilla.d         mozilla.d       systemd
crackmap       gss            mozilla.d         mozilla.d       systemd
crontab        gss            mozilla.d         mozilla.d       systemd
crontab         gss            mozilla.d         mozilla.d       systemd
crontab         gss            mozilla.d         mozilla.d       systemd
cron.d          gss            mozilla.d         mozilla.d       systemd
cron.daily      gss            mozilla.d         mozilla.d       systemd
cron.hourly     gss            mozilla.d         mozilla.d       systemd
cron.monthly    gss            mozilla.d         mozilla.d       systemd
cron.weekly     gss            mozilla.d         mozilla.d       systemd
cron.yearly     gss            mozilla.d         mozilla.d       systemd
cryptsetup-initramfs  gss            mozilla.d         mozilla.d       systemd

```

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

```

File Actions Edit View Help
---(lgut@kali)~/etc/
--- ls -l
total 2588
-rw-r--r-- 1 root root 3981 May 6 14:25 address.conf
drwx-r-x 2 root root 20480 Aug 31 21:16 alternatives
drwx-r-x 8 root root 4996 Aug 31 21:15 apache2
drwx-r-x 2 root root 4996 Aug 31 21:02 apparmor
drwx-r-x 9 root root 4996 Aug 31 21:16 apparmor.d
drwx-r-x 8 root root 4996 Aug 31 21:19 apt
drwx-r-x 2 root root 4996 Aug 31 21:11 arp-wan
drwx-r-x 3 root root 4996 Aug 31 21:14 avahi
-rw-r--r-- 1 root root 7997 May 19 14:11 bash.bashrc
-rw-r--r-- 1 root root 45 Jan 11 2025 bash_completion
drwx-r-x 2 root root 4996 Aug 31 21:15 bash_completion.d
-rw-r--r-- 1 root root 367 Mar 14 18:56 bindresvport.blacklist
drwx-r-x 2 root root 4996 Apr 7 13:39 binfmt.d
drwx-r-x 2 root root 4996 Aug 31 21:14 bluetooth
drwx-r-x 3 root root 4996 Aug 31 21:04 ca-certificates
-rw-r--r-- 1 root root 8422 Aug 31 21:12 ca-certificates.conf
drwx-r-x 2 root root 4996 Aug 31 21:12 chattr
drwx-r-x 2 root root 4996 Aug 31 21:11 chromium
drwx-r-x 2 root root 4996 Aug 31 21:16 chromium.d
drwx-r-x 2 root root 4996 Aug 31 21:14 cifs-utils
drwx-r-x 3 root root 4996 Aug 31 21:08 cloud
drwx-r-x 2 colord colord 4996 Aug 31 21:22 colord
drwx-r-x 2 root root 4996 Aug 31 21:02 console-setup
drwx-r-x 2 root root 4996 Aug 31 21:12 crackmap
drwx-r-x 2 root root 4996 Apr 7 13:39 crontab
drwx-r-x 2 root root 4996 Apr 7 13:39 crontab.encrypted
drwx-r-x 2 root root 4996 Aug 31 21:14 cron.d
drwx-r-x 2 root root 4996 Aug 31 21:15 cron.daily
drwx-r-x 2 root root 4996 Aug 31 21:01 cron.hourly
drwx-r-x 2 root root 4996 Aug 31 21:01 cron.monthly
-rw-r--r-- 1 root root 2642 Apr 6 14:47 crontab
drwx-r-x 2 root root 4996 Aug 31 21:14 cron.weekly
drwx-r-x 2 root root 4996 Aug 31 21:01 cron.yearly

```

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

```

File Actions Edit View Help
└─(lgut@kali)~[/etc]
└─$ ls -d s*
samba          security      shadow       smi.conf     sslsplit     subuid       sudo_logsrvd.conf
samba.d       selinux      shadow-     smop         strongswan.conf  subuid-     supervisord
scalpel       sensors3.conf shells       speech-dispatcher strongswan.d  subversion  sv
screenrc      sensors.d    skel        sqlmap       stunnel       sudo.conf    sysctl.d
sdm.conf.d    services     smartd.conf ssh          subgid        sudoers      sysstat
searchsploit_rc sgml         smartmontools ssl          subgid-      sudoers.d    systemd
└─(lgut@kali)~[/etc]
└─$

```

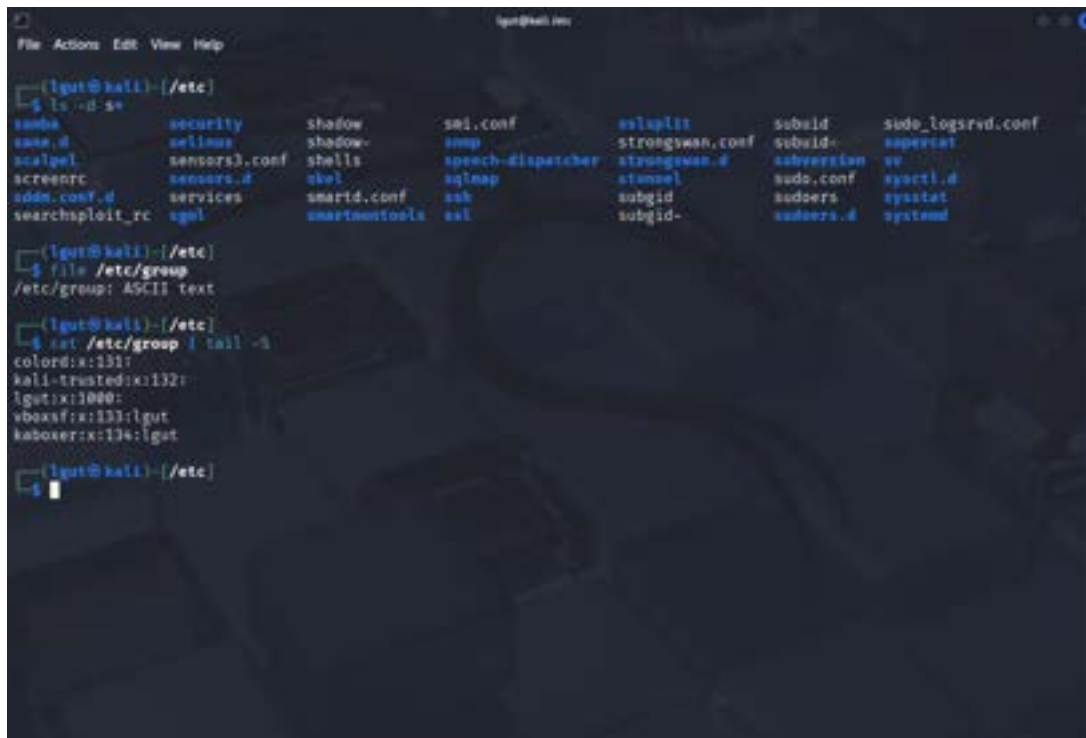
9. Run the command that will determine the type of contents in the **/etc/group** file.

```

File Actions Edit View Help
└─(lgut@kali)~[/etc]
└─$ ls -d s*
samba          security      shadow       smi.conf     sslsplit     subuid       sudo_logsrvd.conf
samba.d       selinux      shadow-     smop         strongswan.conf  subuid-     supervisord
scalpel       sensors3.conf shells       speech-dispatcher strongswan.d  subversion  sv
screenrc      sensors.d    skel        sqlmap       stunnel       sudo.conf    sysctl.d
sdm.conf.d    services     smartd.conf ssh          subgid        sudoers      sysstat
searchsploit_rc sgml         smartmontools ssl          subgid-      sudoers.d    systemd
└─(lgut@kali)~[/etc]
└─$ file /etc/group
/etc/group: ASCII text
└─(lgut@kali)~[/etc]
└─$

```

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




```
lgut@kali: ~  
└─$ ls -d */etc  
├── samba  
├── samba.d  
├── scalpel  
├── screenrc  
├── addn.conf.d  
├── searchsploit_rc  
├── security  
├── selinux  
├── sensors3.conf  
├── sensors.d  
├── services  
├── sgml  
├── shadow  
├── shadow-  
├── shells  
├── skel  
├── smartd.conf  
├── smartmontools  
├── smi.conf  
├── smp  
├── speech-dispatcher  
├── sqlmap  
├── ssh  
├── ssl  
├── sslsplit  
├── strongswan.conf  
├── strongswan.d  
├── stunnel  
├── subgid  
├── subgid-  
├── subuid  
├── strongswan.conf  
├── subuid-  
├── subversion  
├── sudo.conf  
├── sudoers  
├── sudoers.d  
├── sudo_logsrvd.conf  
├── subuid-  
├── subversion  
├── sv  
├── sysctl.d  
├── sysstat  
├── sysstat  
├── systemd
```

```
lgut@kali: ~  
└─$ file /etc/group  
/etc/group: ASCII text
```

```
lgut@kali: ~  
└─$ cat /etc/group | tail -5  
colord:x:131:  
kali-trusted:x:132:  
lgut:x:1000:  
vboxsf:x:133:lgut  
kaboxer:x:134:lgut
```

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



```
lgut@kali: ~  
└─$ ls -d */etc  
├── samba  
├── samba.d  
├── scalpel  
├── screenrc  
├── addn.conf.d  
├── searchsploit_rc  
├── security  
├── selinux  
├── sensors3.conf  
├── sensors.d  
├── services  
├── sgml  
├── shadow  
├── shadow-  
├── shells  
├── skel  
├── smartd.conf  
├── smartmontools  
├── smi.conf  
├── smp  
├── speech-dispatcher  
├── sqlmap  
├── ssh  
├── ssl  
├── sslsplit  
├── strongswan.conf  
├── strongswan.d  
├── stunnel  
├── subgid  
├── subgid-  
├── subuid  
├── strongswan.conf  
├── subuid-  
├── subversion  
├── sudo.conf  
├── sudoers  
├── sudoers.d  
├── sudo_logsrvd.conf  
├── subuid-  
├── subversion  
├── sv  
├── sysctl.d  
├── sysstat  
├── sysstat  
├── systemd
```

```
lgut@kali: ~  
└─$ file /etc/group  
/etc/group: ASCII text
```

```
lgut@kali: ~  
└─$ cat /etc/group | tail -5  
colord:x:131:  
kali-trusted:x:132:  
lgut:x:1000:  
vboxsf:x:133:lgut  
kaboxer:x:134:lgut
```

```
lgut@kali: ~  
└─$ cd -  
~
```

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



```
File Actions Edit View Help
[lgur@kali] ~
└─$ mkdir data
[lgur@kali] ~
└─$
```

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



```
File Actions Edit View Help
[lgur@kali] ~
└─$ mkdir data
[lgur@kali] ~
└─$ cp /etc/passwd data/
[lgur@kali] ~
└─$
```

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



```
logan@kali:~$ cd /data
logan@kali:~/data$ cp -r /etc/ppp ~/
cp: cannot open '/etc/ppp/ppp-secrets' for reading: Permission denied
cp: cannot open '/etc/ppp/ispd-secrets' for reading: Permission denied
logan@kali:~/data$
```

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



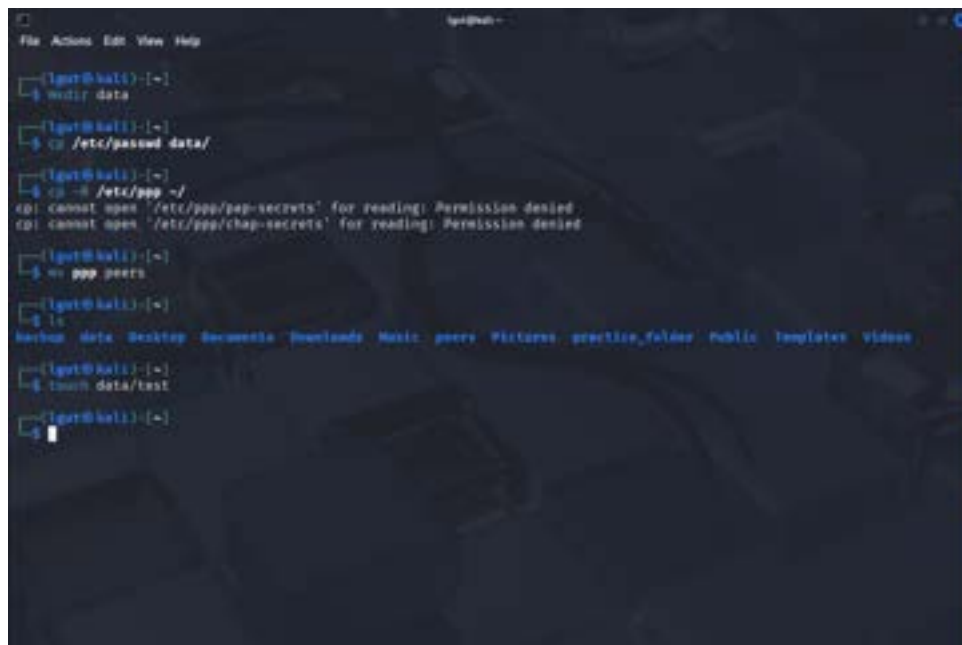
```
logan@kali:~/data$ mv ppp peers
logan@kali:~/data$
```

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



```
lgut@kali:~$ mkdir data
lgut@kali:~$ cp /etc/passwd data/
lgut@kali:~$ cp -R /etc/ppp ~/
cp: cannot open '/etc/ppp/ppp-secrets' for reading: Permission denied
cp: cannot open '/etc/ppp/chap-secrets' for reading: Permission denied
lgut@kali:~$ mv ppp peers
lgut@kali:~$ ls
backup  data  Desktop  Documents  Downloads  Music  peers  Pictures  practice_folder  Public  Templates  Videos
lgut@kali:~$
```

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



```
lgut@kali:~$ mkdir data
lgut@kali:~$ cp /etc/passwd data/
lgut@kali:~$ cp -R /etc/ppp ~/
cp: cannot open '/etc/ppp/ppp-secrets' for reading: Permission denied
cp: cannot open '/etc/ppp/chap-secrets' for reading: Permission denied
lgut@kali:~$ mv ppp peers
lgut@kali:~$ ls
backup  data  Desktop  Documents  Downloads  Music  peers  Pictures  practice_folder  Public  Templates  Videos
lgut@kali:~$ touch data/test
lgut@kali:~$
```

18. Delete the **data/passwd** file.

```
File Actions Edit View Help
[lgut@kali] ~
└─$ mkdir data

[lgut@kali] ~
└─$ cd /etc/passwd data/

[lgut@kali] ~
└─$ cp -R /etc/ppp ~/
cp: cannot open '/etc/ppp/ppp-secrets' for reading: Permission denied
cp: cannot open '/etc/ppp/chap-secrets' for reading: Permission denied

[lgut@kali] ~
└─$ mv ppp peers

[lgut@kali] ~
└─$ ls
backup data Desktop Documents Downloads Music peers Pictures practice_folder Public Templates Videos

[lgut@kali] ~
└─$ touch data/test

[lgut@kali] ~
└─$ rm data/passwd

[lgut@kali] ~
└─$
```

19. Delete the **peers** directory.

```
File Actions Edit View Help
[lgut@kali] ~
└─$ mkdir data

[lgut@kali] ~
└─$ cd /etc/passwd data/

[lgut@kali] ~
└─$ cp -R /etc/ppp ~/
cp: cannot open '/etc/ppp/ppp-secrets' for reading: Permission denied
cp: cannot open '/etc/ppp/chap-secrets' for reading: Permission denied

[lgut@kali] ~
└─$ mv ppp peers

[lgut@kali] ~
└─$ ls
backup data Desktop Documents Downloads Music peers Pictures practice_folder Public Templates Videos

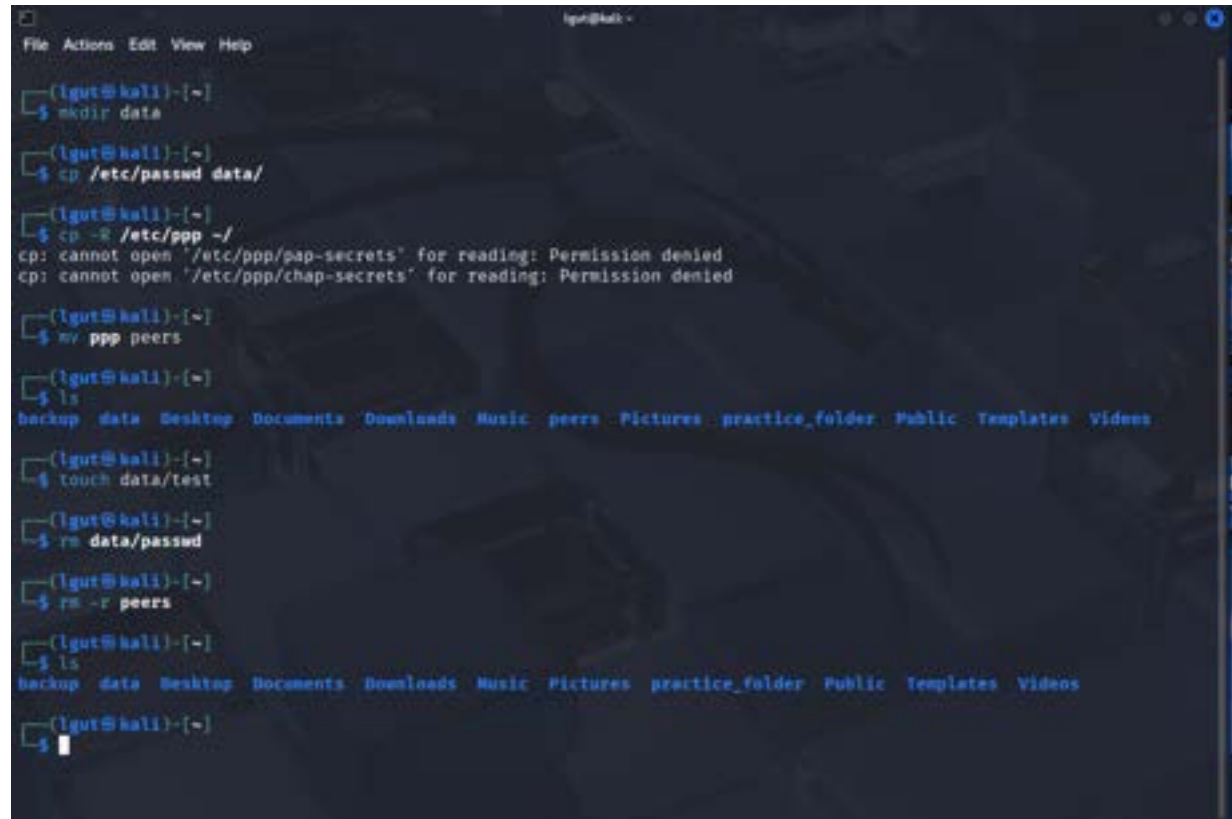
[lgut@kali] ~
└─$ touch data/test

[lgut@kali] ~
└─$ rm data/passwd

[lgut@kali] ~
└─$ rm -r peers

[lgut@kali] ~
└─$
```

20. Re-execute the ls command.



```
lgut@kali ~  
File Actions Edit View Help  
[lgut@kali]~  
$ mkdir data  
[lgut@kali]~  
$ cd /etc/passwd data/  
[lgut@kali]~  
$ cp -R /etc/ppp -/  
cp: cannot open '/etc/ppp/pap-secrets' for reading: Permission denied  
cp: cannot open '/etc/ppp/chap-secrets' for reading: Permission denied  
[lgut@kali]~  
$ mv ppp peers  
[lgut@kali]~  
$ ls  
backup data Desktop Documents Downloads Music peers Pictures practice_folder Public Templates Videos  
[lgut@kali]~  
$ touch data/test  
[lgut@kali]~  
$ rm data/passwd  
[lgut@kali]~  
$ rm -r peers  
[lgut@kali]~  
$ ls  
backup data Desktop Documents Downloads Music Pictures practice_folder Public Templates Videos  
[lgut@kali]~  
$
```