

RHSA1 Lab 1

1. Install Ubuntu.

2. What is the difference between cat and more command?

Sol.

- **Cat** displays the contents of the file. It helps us to create, view, concatenate files.
- **More** displays one screen at a time in case the file is large. When the output is large, we can use more command to see output one by one.

3. What is the difference between rm and rmdir using man?

Sol.

- **rm** removes references to objects from the filesystem, where those objects might have had multiple references. By default, it does not remove directories.
- **rmdir** remove empty directories.

4. Create the following hierarchy under your home directory:

Sol.

```
alifathy99@alifathy99-G5-5500:~/Desktop/test$ cd ..
alifathy99@alifathy99-G5-5500:~/Desktop$ mkdir dir1
alifathy99@alifathy99-G5-5500:~/Desktop$ mkdir dir1/dir11
alifathy99@alifathy99-G5-5500:~/Desktop$ mkdir dir1/dir12
alifathy99@alifathy99-G5-5500:~/Desktop$ touch dir1/dir11/file1
alifathy99@alifathy99-G5-5500:~/Desktop$ mkdir docs
alifathy99@alifathy99-G5-5500:~/Desktop$ touch docs/mycv
alifathy99@alifathy99-G5-5500:~/Desktop$
```

```
./dir1:
dir11  dir12

./dir1/dir11:
file1

./dir1/dir12:

./docs:
mycv
```

a. Remove dir11 in one-step. What did you notice? And how did you overcome that?

`rm dir1/dir11` doesn't remove dir11 because it is not empty and to overcome that we use `rm -r dir1/dir11` which removes dir11 with its data

```
alifathy99@alifathy99-G5-5500:~/Desktop$ rm -r dir1/dir11
```

b. Then remove dir12 using `rmdir -p` command. State what happened to the hierarchy (Note: you are in your home directory).

```
alifathy99@alifathy99-G5-5500:~/Desktop$ rmdir -p dir1/dir12
rmdir: failed to remove '-p': No such file or directory
```

It will remove dir12 and there is no ancestors inside dir12 to remove them.

c. The output of the command `pwd` was `/home/user`. Write the absolute and relative path for the file `mycv`

Absolute path:

`cd /home/alifathy99/~/Desktop/docs/mycv`

Relative path:

`cd /docs/mycv/`

5. Copy the `/etc/passwd` file to your home directory making its name is `mypasswd`.

```
alifathy99@alifathy99-G5-5500:~$ cp /etc/passwd mypasswd
```

6. Rename this new file to be `oldpasswd`.

```
alifathy99@alifathy99-G5-5500:~$ mv mypasswd oldpasswd
```

7. You are in `/usr/bin`, list four ways to go to your home directory

First way:

```
alifathy99@alifathy99-G5-5500:/$ cd ..
alifathy99@alifathy99-G5-5500:/$ cd home
```

Second way:

```
alifathy99@alifathy99-G5-5500:/bin$ cd
alifathy99@alifathy99-G5-5500:~$ cd ..
alifathy99@alifathy99-G5-5500:/home$
```

Third way:

```
alifathy99@alifathy99-G5-5500:/home$ cd /bin
alifathy99@alifathy99-G5-5500:/bin$ cd -
/home
alifathy99@alifathy99-G5-5500:/home$
```

Fourth way:

```
alifathy99@alifathy99-G5-5500:/bin$ cd $home
alifathy99@alifathy99-G5-5500:~$ cd ..
```

8. List Linux commands in /usr/bin that start with letter w

```
alifathy99@alifathy99-G5-5500:/bin$ ls w*
```

```
alifathy99@alifathy99-G5-5500:/bin$ ls w*
w watch watchgnupg wc wdcctl wget whatis whereis which whiptail who whoami whoopsie whoopsie-preferences word-list-compress wpa_passphrase w.procps write
```

9. Display the first 4 lines of /etc/passwd

```
alifathy99@alifathy99-G5-5500:/home$ head 4 /etc/passwd
head: cannot open '4' for reading: No such file or directory
==> /etc/passwd <==
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
```

10. Display the last 7 lines of /etc/passwd

```
alifathy99@alifathy99-G5-5500:/home$ tail -7 /etc/passwd
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:124:65534::/run/gnome-initial-setup:/bin/false
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
sssd:x:126:131:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
alifathy99:x:1000:1000:Ali Ahmed Fathi,,,:/home/alifathy99:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
fwupd-refresh:x:127:134:fwupd-refresh user,,,:/run/systemd:/usr/sbin/nologin
```

11. Display the man pages of passwd the command and the file sequentially in one command.

```
alifathy99@alifathy99-G5-5500:/home$ man -a /bin/passwd
--Man-- next: passwd(1ssl) [ view (return) | skip (Ctrl-D) | quit (Ctrl-C) ]
^C
```

12. Display the man page of the passwd file.

```
alifathy99@alifathy99-G5-5500:/home$ man /bin/passwd
```

13. Display a list of all the commands that contain the keyword passwd in their man page.

```
alifathy99@alifathy99-G5-5500:/home$ cd /bin
alifathy99@alifathy99-G5-5500:/bin$ man -k passwd
chpasswd (8)          - update group passwords in batch mode
chpasswd (8)          - update passwords in batch mode
gpasswd (1)           - administer /etc/group and /etc/gshadow
grub-mkpasswd-pbkdf2 (1) - generate hashed password for GRUB
openssl-passwd (1ssl) - compute password hashes
pam_localuser (8)     - require users to be listed in /etc/passwd
passwd (1)            - change user password
passwd (1ssl)         - compute password hashes
passwd (5)            - the password file
update-passwd (8)     - safely update /etc/passwd, /etc/shadow and /etc/group
```