

1. Done
2. cat vs more
  - a. Cat:
    - i. Displays the entire content of the file at once.
    - ii. Useful for small files.
    - iii. No scrolling or paging — just dumps the file contents directly to the terminal.
  - b. More:
    - i. Displays the file one screen at a time (paged output).
    - ii. Lets you scroll through large files using Enter (line-by-line) or Space (page-by-page).
    - iii. Good for reading large files without flooding the terminal.

3.

rm delete files  
-r with dir

rmdir empty dir only

```
RM(1)
NAME
    rm - remove files or directories
```

```
RMDIR(1)
NAME
    rmdir - remove empty directories
```

4.

```
mostafa@mostafa-virtual-machine:~$ mkdir dir1 docs
mostafa@mostafa-virtual-machine:~$ mkdir dir1/dir11 dir1/dir12
mostafa@mostafa-virtual-machine:~$ touch dir1/dir11/file1
mostafa@mostafa-virtual-machine:~$ touch docs/mycv
```

5.

```
mostafa@mostafa-virtual-machine:~$ rmdir dir1/dir11
rmdir: failed to remove 'dir1/dir11': Directory not empty
mostafa@mostafa-virtual-machine:~$
```

This is because rmdir can only delete empty directories, and dir11 contains a file (file1).

To solve the problem, I used the rm command with the -r option to delete the directory and its contents recursively

6.

```
mostafa@mostafa-virtual-machine:~$ rmdir -p dir1/dir12
```

rmdir remove parent if empty

The directory dir12 was deleted

Since dir1 became **empty** after dir12 was removed, rmdir -p also deleted dir1

7.

```
mostafa@mostafa-virtual-machine:~$ cp /etc/passwd ~/mypasswd
```

8.

```
mostafa@mostafa-virtual-machine:~$ mv ~/mypasswd ~/oldpasswd
```

9. Absolute Path: /home/user/docs/mycv

Relative Path: docs/mycv

10. cd ||||| cd ~ ||||| cd \$HOME ||||| cd /home/user

11.

```
mostafa@mostafa-VirtualBox:~$ ls /usr/bin | grep '^w'
w
wall
watch
watchnupg
wc
wdctl
wget
whatis
whereis
which
which.debianutils
whiptail
who
whoami
whoopsie
whoopsie-preferences
word-list-compress
wpa_passphrase
write
write.ul
```

12.

```
mostafa@mostafa-virtual-machine:~$ head -n 4 /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
```

13.

```
mostafa@mostafa-virtual-machine:~$ tail -n 7 /etc/passwd
colord:x:123:130:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:124:131:/:/var/lib/geoclue:/usr/sbin/nologin
pulse:x:125:132:PulseAudio daemon,,,:/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:126:65534:/:/run/gnome-initial-setup:/bin/false
hplip:x:127:7:HPLIP system user,,,:/run/hplip:/bin/false
gdm:x:128:134:Gnome Display Manager:/var/lib/gdm3:/bin/false
mostafa:x:1000:1000:mostafa,,,:/home/mostafa:/bin/bash
```

14.

man -a passwd

////////man passwd; cat /etc/passwd////////

PASSWD(1)

NAME

passwd - change user password

```
mostafa@mostafa-VirtualBox:~$ man passwd ; cat /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
```

15.

```
PASSWD(1) User Commands PASSWD(1)
NAME
passwd - change user password
SYNOPSIS
passwd [options] [LOGIN]
DESCRIPTION
The passwd command changes passwords for user accounts. A normal user may only change the password for their own account, while the superuser may change the password for any account. passwd
also changes the account or associated password validity period.
```

16.

-k search for keyword

```
mostafa@mostafa-VirtualBox:~$ man -k passwd
chgrp(8) - update group passwords in batch mode
chpasswd(8) - update passwords in batch mode
passwd(1) - administer /etc/group and /etc/gshadow
grub-mkpasswd-pbkdf2(1) - generate hashed password for GRUB
ldappasswd(1) - change the password of an LDAP entry
openssl-passwd(1ssl) - compute password hashes
pam_localuser(8) - require users to be listed in /etc/passwd
passwd(1) - change user password
passwd(1ssl) - OpenSSL application commands
passwd(5) - the password file
update-passwd(8) - safely update /etc/passwd, /etc/shadow and /etc/group
```