2. What is the different between **cat** and **more** command?
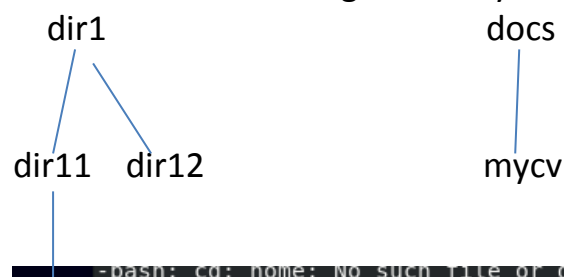
Cat : view content of files

More : view the content but divide into pages

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

rm : remove files &

rmidir : remove only the empty directory

4. Create the following hierarchy under your home directory:
   dir1   docs

dir11   dir12   mycv

```
-bash: cd: home: No such file or directory
[root@Alaa-khaled ~]# pwd
/root
[root@Alaa-khaled ~]# cd /home
[root@Alaa-khaled home]# ls
alaa  Alaa_Khaled  bob  harry  natasha  sara  sysadms
[root@Alaa-khaled home]# mkdir dir1
[root@Alaa-khaled home]# ls
alaa  Alaa_Khaled  bob  dir1  harry  natasha  sara  sysadms
[root@Alaa-khaled home]# mkdir dir1/dir11
[root@Alaa-khaled home]# mkdir dir1/dir12
[root@Alaa-khaled home]# touch dir1/dir11/file1
[root@Alaa-khaled home]# mkdir docs
[root@Alaa-khaled home]# touch docs/mycv
[root@Alaa-khaled home]# ls
alaa  Alaa_Khaled  bob  dir1  docs  harry  natasha  sara  sysadms
[root@Alaa-khaled home]# ls dir1
dir11  dir12
[root@Alaa-khaled home]# ls dir1/dir11
file1
[root@Alaa-khaled home]# ls docs
mycv
```

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

```
  [root@Alaa-khaled home]# cd dir1
  [root@Alaa-khaled dir1]# rm -rf dir11
  [root@Alaa-khaled dir1]# ls
  dir12
  [root@Alaa-khaled dir1]#
```

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

```
[root@Alaa-khaled dir1]# cd ..
[root@Alaa-khaled home]# cd dir1
[root@Alaa-khaled dir1]# rmdir -p dir12
[root@Alaa-khaled dir1]# ls
[root@Alaa-khaled dir1]# ▮
```

4.c the output pwd /hom/user write Absolute and relative path for mycv

Absolute : cd home/docs/mycv

Relative cd

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

```
[root@Alaa-khaled docs]# cd ../..
[root@Alaa-khaled /]# cp -i etc/passwd /home/mypasswd
[root@Alaa-khaled /]# ls /home/
alaa  Alaa_Khaled  bob  dir1  docs  harry  mypasswd  nat
[root@Alaa-khaled /]#
```

6. Rename this new file to be oldpasswd.

```
[root@Alaa-khaled /]# mv /home/mypasswd  /home/oldpasswd
[root@Alaa-khaled /]# ls /home/
alaa  Alaa_Khaled  bob  dir1  docs  harry  natasha  oldpasswd
[root@Alaa-khaled /]#
```

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

 Cd

Cd ../../home/alaa

Cd /home/alaa

```
[root@Alaa-khaled home]# cd $HOME
[root@Alaa-khaled ~]# pwd
/root
```

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

```
[root@Alaa-khaled home]# cd ..
[root@Alaa-khaled /]# ls usr/bin/w*
usr/bin/w              usr/bin/wdctl        usr/bin/whoami
usr/bin/wait           usr/bin/wget         usr/bin/wnck-urgency-monitor
usr/bin/wall           usr/bin/whatis       usr/bin/word-list-compress
usr/bin/watch          usr/bin/whereis      usr/bin/write
usr/bin/watchgnupg     usr/bin/which        usr/bin/wvgain
usr/bin/wavpack        usr/bin/whiptail     usr/bin/wvtag
usr/bin/wc             usr/bin/who          usr/bin/wvunpack
[root@Alaa-khaled /]#
```

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

```
[root@Alaa-khaled home]# head -4 /etc/passwd
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
[root@Alaa-khaled home]#
```

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

```
[root@Alaa-khaled home]# tail -7 /etc/passwd
tcpdump:x:72:72::/:/sbin/nologin
alaa:x:1000:1000:alaa khaled :/home/alaa:/bin/bash
natasha:x:1001:1002::/home/natasha:/bin/bash
harry:x:1002:1003::/home/harry:/bin/bash
sara:x:1003:1004::/home/sara:/sbin/nologin
Alaa_Khaled:x:1004:1005::/home/Alaa_Khaled:/bin/bash
bob:x:2112:2112::/home/bob:/bin/bash
[root@Alaa-khaled home]#
```
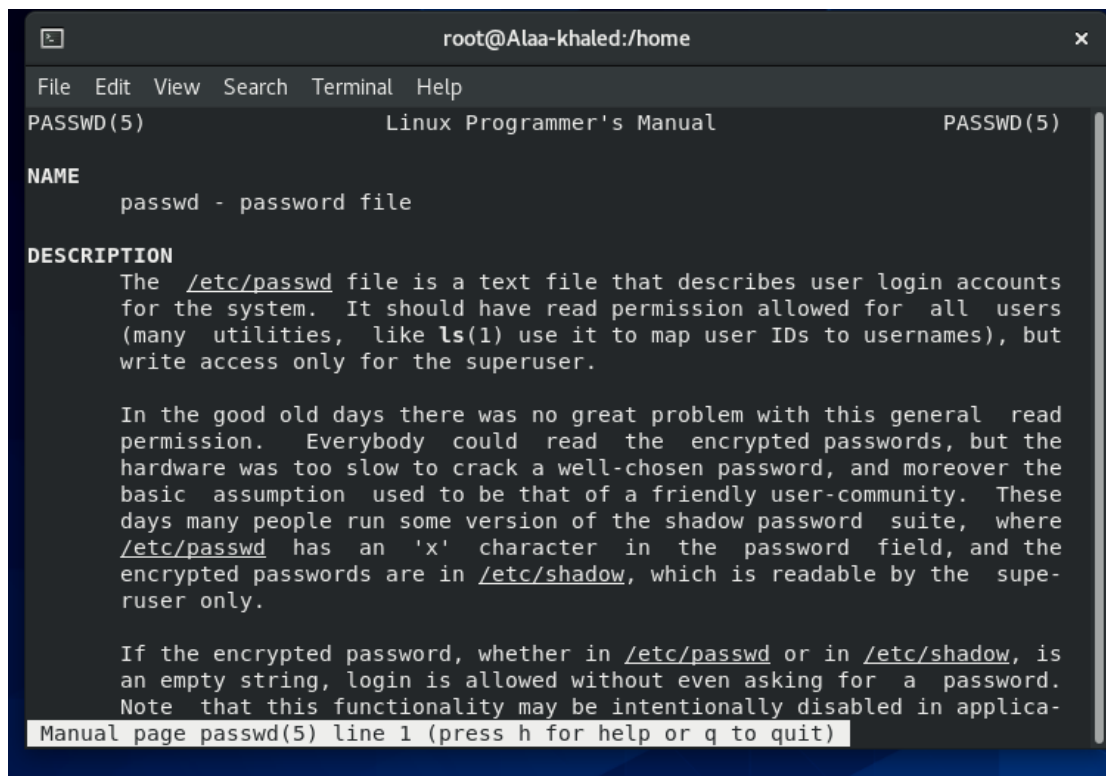
11. Display the man pages of passwd the command and the file sequentially in one command

```
[root@Alaa-khaled ~]# man -a passwd
--Man-- next: passwd(5) [ view (return) | skip (Ctrl-D) | quit (Ctrl-C) ]
^C
[root@Alaa-khaled ~]#
```

And quit I used q

12. Display the man page of the passwd file.

```
[root@Alaa-khaled home]# man 5 passwd
[root@Alaa-khaled home]#
```

File Edit View Search Terminal Help

PASSWD(5)   Linux Programmer's Manual   PASSWD(5)

NAME
       passwd - password file

DESCRIPTION
       The /etc/passwd file is a text file that describes user login accounts
       for the system. It should have read permission allowed for all users
       (many utilities, like **ls**(1) use it to map user IDs to usernames), but
       write access only for the superuser.

       In the good old days there was no great problem with this general read
       permission.   Everybody could read the encrypted passwords, but the
       hardware was too slow to crack a well-chosen password, and moreover the
       basic assumption used to be that of a friendly user-community.   These
       days many people run some version of the shadow password suite, where
       /etc/passwd has an 'x' character in the password field, and the
       encrypted passwords are in /etc/shadow, which is readable by the supe-
       ruser only.

       If the encrypted password, whether in /etc/passwd or in /etc/shadow, is
       an empty string, login is allowed without even asking for a password.
       Note that this functionality may be intentionally disabled in applica-
 Manual page passwd(5) line 1 (press h for help or q to quit)

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

 Man -k passwd