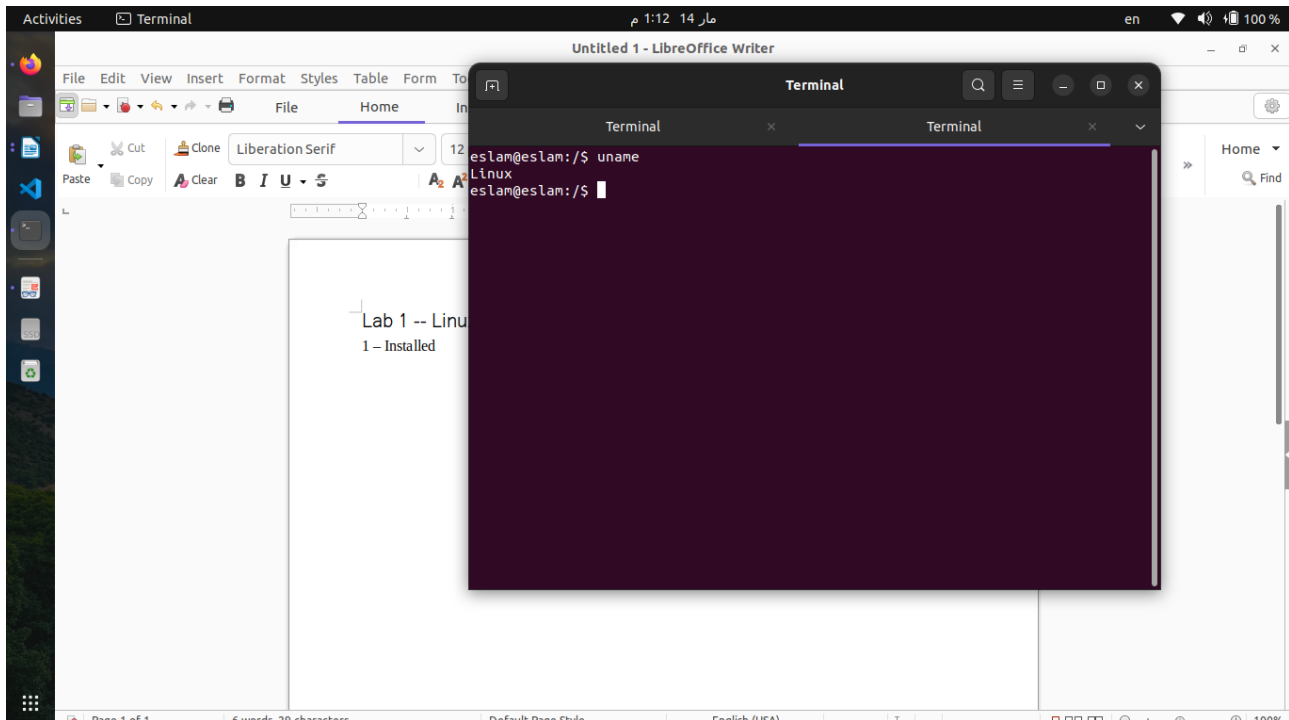


Lab 1 -- Linux

1 – Installed

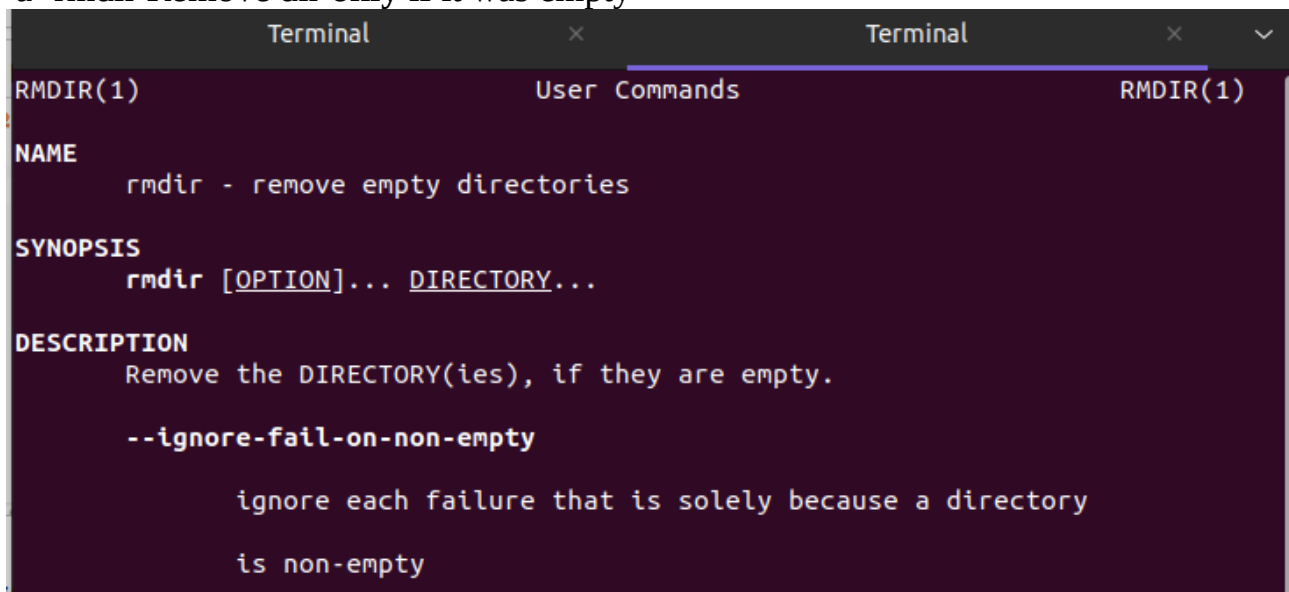


2 – What is the difference between cat and more command?

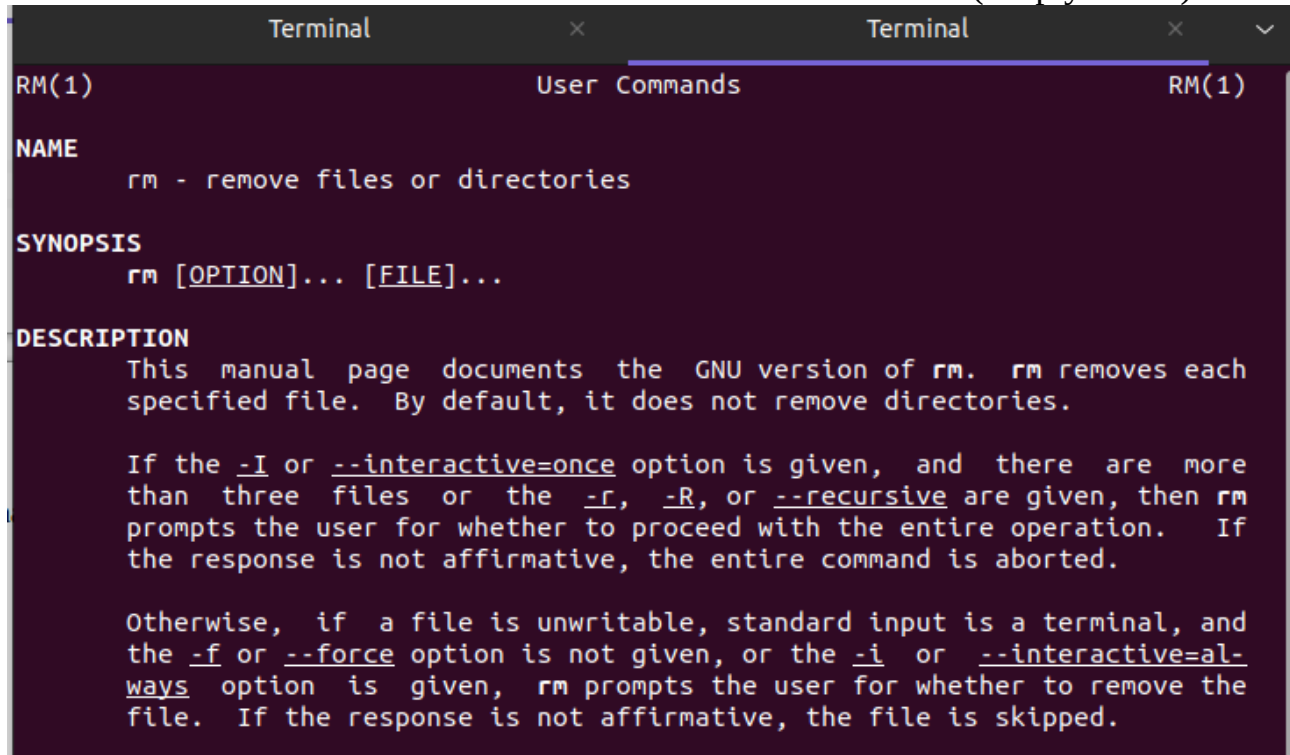
Cat is show contents of a file ---- but simple
more is to show whole contents of a file -- all content

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

a- rmdir Remove dir **only if** it was empty



b – on the other hand rm is for remove **files or directories** at all (Empty or not)



```
RM(1)                                     User Commands                                RM(1)

NAME
  rm - remove files or directories

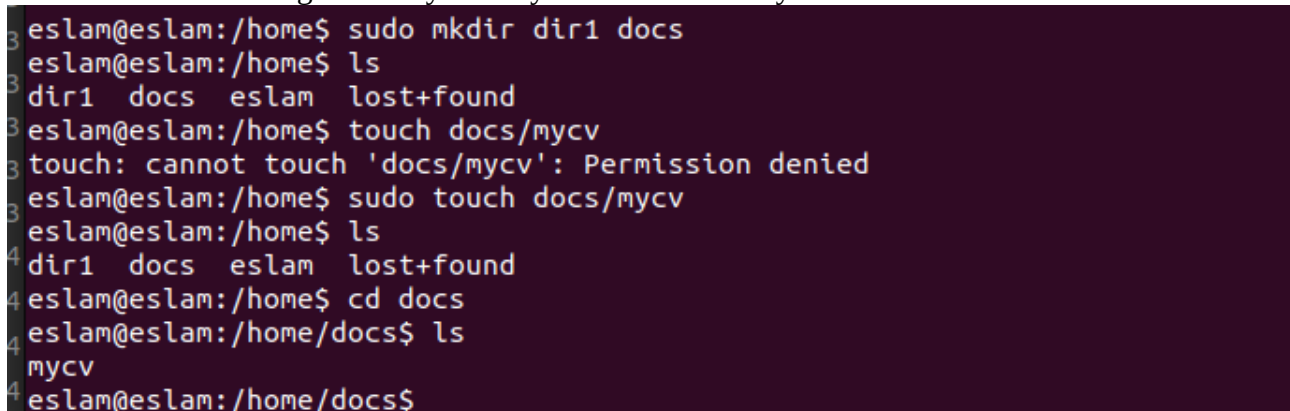
SYNOPSIS
  rm [OPTION]... [FILE]...

DESCRIPTION
  This manual page documents the GNU version of rm.  rm removes each
  specified file.  By default, it does not remove directories.

  If the -I or --interactive=once option is given, and there are more
  than three files or the -r, -R, or --recursive are given, then rm
  prompts the user for whether to proceed with the entire operation.  If
  the response is not affirmative, the entire command is aborted.

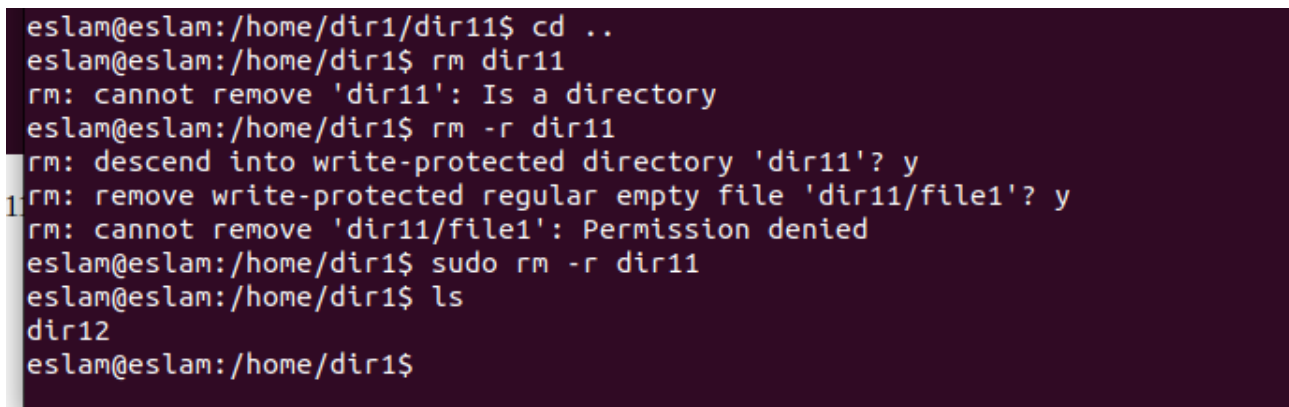
  Otherwise, if a file is unwritable, standard input is a terminal, and
  the -f or --force option is not given, or the -i or --interactive=al-
ways option is given, rm prompts the user for whether to remove the
  file.  If the response is not affirmative, the file is skipped.
```

4 - Create the following hierarchy under your home directory:



```
eslam@eslam:/home$ sudo mkdir dir1 docs
eslam@eslam:/home$ ls
dir1 docs eslam lost+found
eslam@eslam:/home$ touch docs/mycv
touch: cannot touch 'docs/mycv': Permission denied
eslam@eslam:/home$ sudo touch docs/mycv
eslam@eslam:/home$ ls
dir1 docs eslam lost+found
eslam@eslam:/home$ cd docs
eslam@eslam:/home/docs$ ls
mycv
eslam@eslam:/home/docs$
```

4.a- Remove dir11 in one-step. What did you notice? And how did you overcome that?
cd .. then it requires me a root permit to remove the directory I've raised it by sudo



```
eslam@eslam:/home/dir1/dir11$ cd ..
eslam@eslam:/home/dir1$ rm dir11
rm: cannot remove 'dir11': Is a directory
eslam@eslam:/home/dir1$ rm -r dir11
rm: descend into write-protected directory 'dir11'? y
1 rm: remove write-protected regular empty file 'dir11/file1'? y
rm: cannot remove 'dir11/file1': Permission denied
eslam@eslam:/home/dir1$ sudo rm -r dir11
eslam@eslam:/home/dir1$ ls
dir12
eslam@eslam:/home/dir1$
```

Then remove dir12 using rmdir -p command. State what happened to the hierarchy (Note: you are in your home directory). Dir12 have a file inside it

```
eslam@eslam:/home/dir1$ sudo rmdir -p dir12
rmdir: failed to remove 'dir12': Directory not empty
eslam@eslam:/home/dir1$
```

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

```
eslam@eslam:~$ cd ../docs/
eslam@eslam:/home/docs$ ls
mycv
eslam@eslam:/home/docs$
```

```
eslam@eslam:/home$ cd /home/docs/
eslam@eslam:/home/docs$ ls
mycv
eslam@eslam:/home/docs$
```

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

```
eslam@eslam:/$ sudo cp -f /etc/passwd /home/mypasswd
eslam@eslam:/$ ls
bin  cdrom  etc  lib  lib64  lost+found  mnt  proc  run  snap  sys  usr
boot  dev  home  lib32  libx32  media  opt  root  sbin  srv  tmp  var
eslam@eslam:/$ cd /home/
eslam@eslam:/home$ ls
dir1  docs  eslam  lost+found  mypasswd
eslam@eslam:/home$
```

6 -Rename this new file to be oldpasswd .

```
eslam@eslam:/home$ sudo mv -f mypasswd oldpasswd
eslam@eslam:/home$ ls
dir1  docs  eslam  lost+found  oldpasswd
eslam@eslam:/home$
```

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

```
eslam@eslam:/$ cd bin
eslam@eslam:/bin$ cd ../home
eslam@eslam:/home$
```

```
eslam@eslam:/bin$ cd ..
eslam@eslam:/$ cd home
eslam@eslam:/home$
```

```
eslam@eslam:/bin$ cd /home
eslam@eslam:/home$
```

```
eslam@eslam:/bin$ cd ~
eslam@eslam:~$ cd /home
eslam@eslam:/home$
```

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

```
eslam@eslam:/bin$ ls -d w*
w      whereis      wine           winefile       wpa_passphrase
wall   which           wineboot       winefile-stable wrestool
watch  which.debianutils wineboot-stable winepath        write
watchgnupg whiptail      winecfg        winepath-stable write.ul
wbmptopbm who           winecfg-stable wineserver      wwan
wc      whoami         wineconsole    wineserver-stable
wdctl   whoopsie      wineconsole-stable wine-stable
wget    whoopsie-preferences winedbg        winicontoppm
whatis  wifi          winedbg-stable word-list-compress
eslam@eslam:/bin$
```

```
W(1)                                User Commands                                W(1)
NAME
w - Show who is logged on and what they are doing.
```

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

```
eslam@eslam:/etc$ head -4 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
```

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

```
eslam@eslam:/etc$ tail -7 passwd
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
eslam:x:1000:1000:Eslam,,,:/home/eslam:/bin/bash
mysql:x:129:137:MySQL Server,,,:/nonexistent:/bin/false
snapd-range-524288-root:x:524288:524288:./nonexistent:/usr/bin/false
snap_daemon:x:584788:584788:./nonexistent:/usr/bin/false
```

-11., 12 Display the man pages of passwd the command and the file sequentially in one command.

حل رقم 11 و 12 و 13 متقارب من خلال

```
man -k /etc/passwd;
```

```
man /etc/passwd;
```

```
man -a /etc/passwd
```

يمكن عمل اكثر من امر من خلال

```
chgrp(8) - update group passwords in batch mode
chpasswd(8) - update passwords in batch mode
fgetpwent_r(3) - get passwd file entry reentrantly
getpwent_r(3) - get passwd file entry reentrantly
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) - OpenSSL application commands
passwd(5) - the password file
passwd2des(3) - RFS password encryption
update-passwd(8) - safely update /etc/passwd, /etc/shadow and /etc/group
```

```
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.

    Password Changes
    The user is first prompted for their old password, if one is present. This password is then encrypted and compared against the stored password. The user has only one chance to enter the correct password. The superuser is permitted to bypass this step so that forgotten passwords may be changed.

    After the password has been entered, password aging information is checked to see if the user is permitted to change the password at this time. If not, passwd refuses to change the password and exits.

    The user is then prompted twice for a replacement password. The second entry is compared against the first and both are required to match in order for the password to be changed.

    Then, the password is tested for complexity. As a general guideline, passwords should consist of 6 to 8 characters including one or more characters from each of the following sets:

    • lower case alphabets
```

```
Manual page passwd(1) line 1/179 20% (press h for help or q to quit)
```