

RHSA1 - Lab 1

1. Install CentOS /RHEL
2. What is the difference between cat and more command?

cat -> view the contents of a file. It displays the contents of the file(s) specified on to the output terminal.

more -> displays the contents of the file one screen at a time for large files.

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

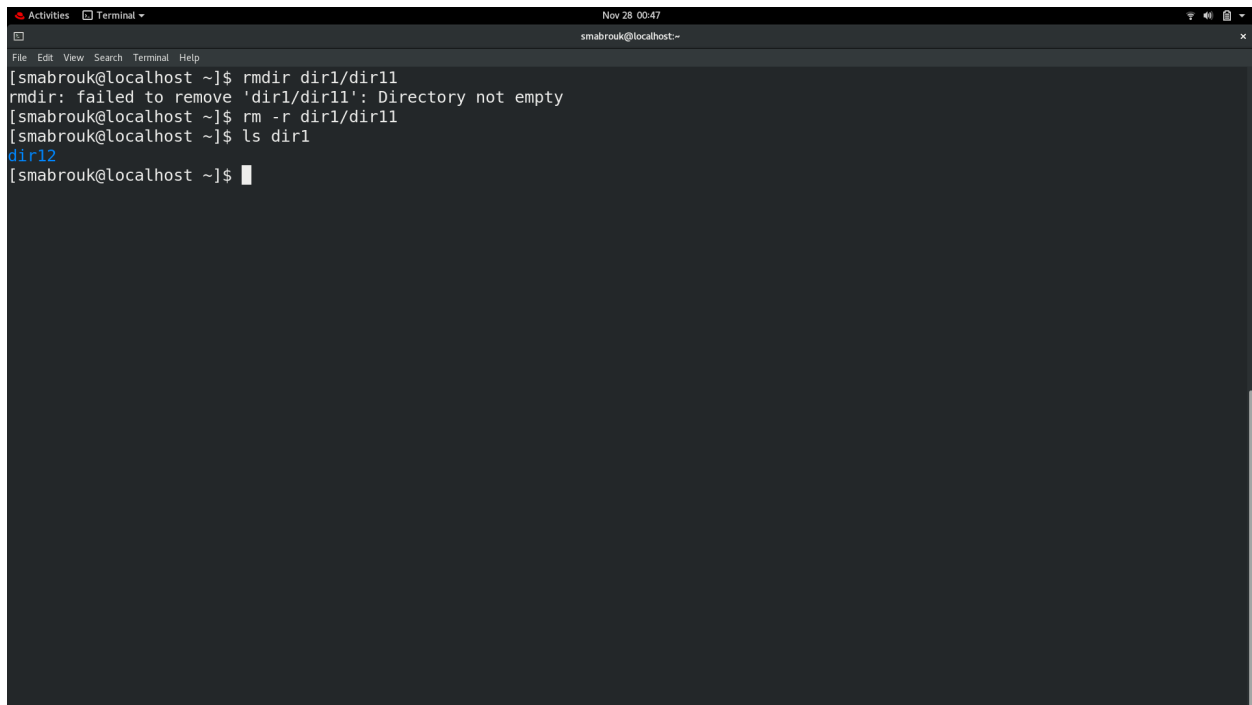
rm - remove files or directories

rmdir - remove empty directories

4. Create a hierarchy under your home directory:

```
Activities Terminal Nov 28 00:43
smabrouk@localhost:~/docs
File Edit View Search Terminal Help
[smabrouk@localhost ~]$ cd
[smabrouk@localhost ~]$ ls
Desktop Documents Downloads Music myteam oldpasswd Pictures Public Templates test_perm testperm Videos
[smabrouk@localhost ~]$ mkdir dir1
[smabrouk@localhost ~]$ ls
Desktop dir1 Documents Downloads Music myteam oldpasswd Pictures Public Templates test_perm testperm Videos
[smabrouk@localhost ~]$ cd dir1
[smabrouk@localhost dir1]$ mkdir dir11 dir12
[smabrouk@localhost dir1]$ ls
dir11 dir12
[smabrouk@localhost dir1]$ cd dir11
[smabrouk@localhost dir11]$ pwd
/home/smabrouk/dir1/dir11
[smabrouk@localhost dir11]$ touch file1
[smabrouk@localhost dir11]$ ls
file1
[smabrouk@localhost dir11]$ cd
[smabrouk@localhost ~]$ pwd
/home/smabrouk
[smabrouk@localhost ~]$ mkdir docs
[smabrouk@localhost ~]$ touch mycv
[smabrouk@localhost ~]$ rm mycv
[smabrouk@localhost ~]$ cd docs
[smabrouk@localhost docs]$ touch mycv
[smabrouk@localhost docs]$ ls
mycv
[smabrouk@localhost docs]$
```

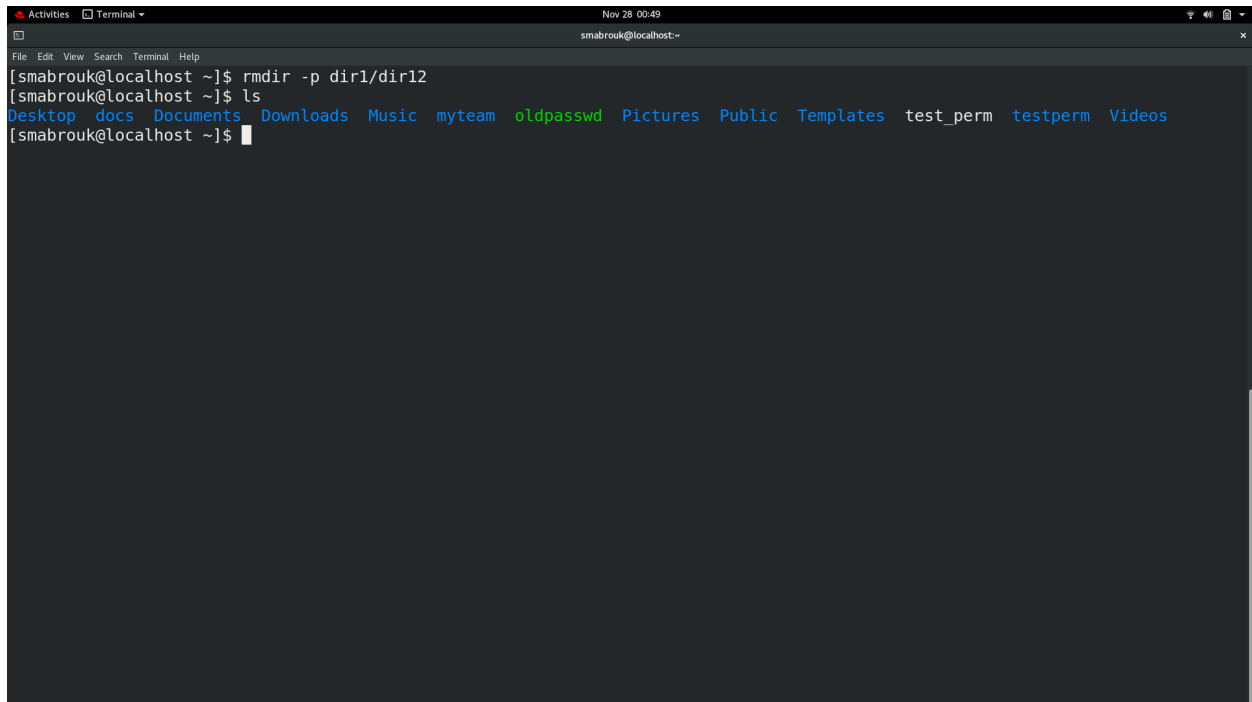
- a. Remove dir11 in one-step. What did you notice? And how did you overcome that?



A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Nov 28 00:47, smabrouk@localhost:~). The terminal shows the following commands and output:

```
[smabrouk@localhost ~]$ rmdir dir1/dir11
rmdir: failed to remove 'dir1/dir11': Directory not empty
[smabrouk@localhost ~]$ rm -r dir1/dir11
[smabrouk@localhost ~]$ ls dir1
dir12
[smabrouk@localhost ~]$
```

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



A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Nov 28 00:49, smabrouk@localhost:~). The terminal shows the following commands and output:

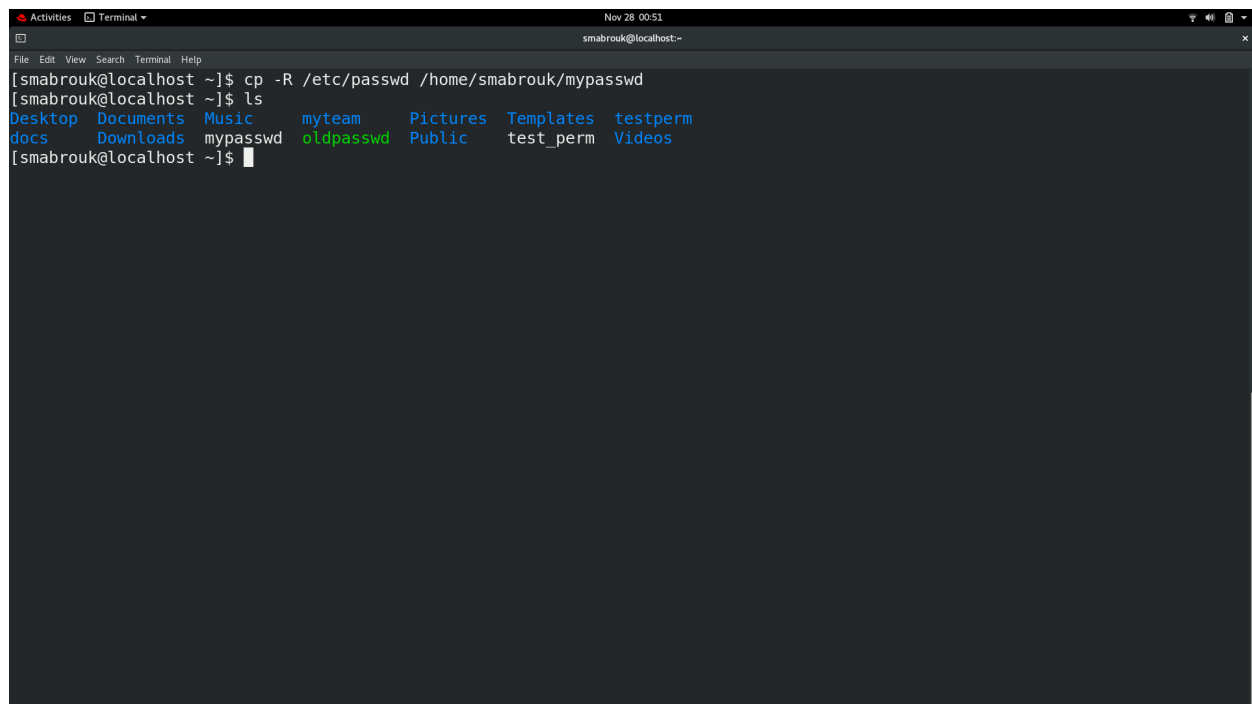
```
[smabrouk@localhost ~]$ rmdir -p dir1/dir12
[smabrouk@localhost ~]$ ls
Desktop docs Documents Downloads Music myteam oldpasswd Pictures Public Templates test_perm testperm Videos
[smabrouk@localhost ~]$
```

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

Relative Path: /docs/mycv

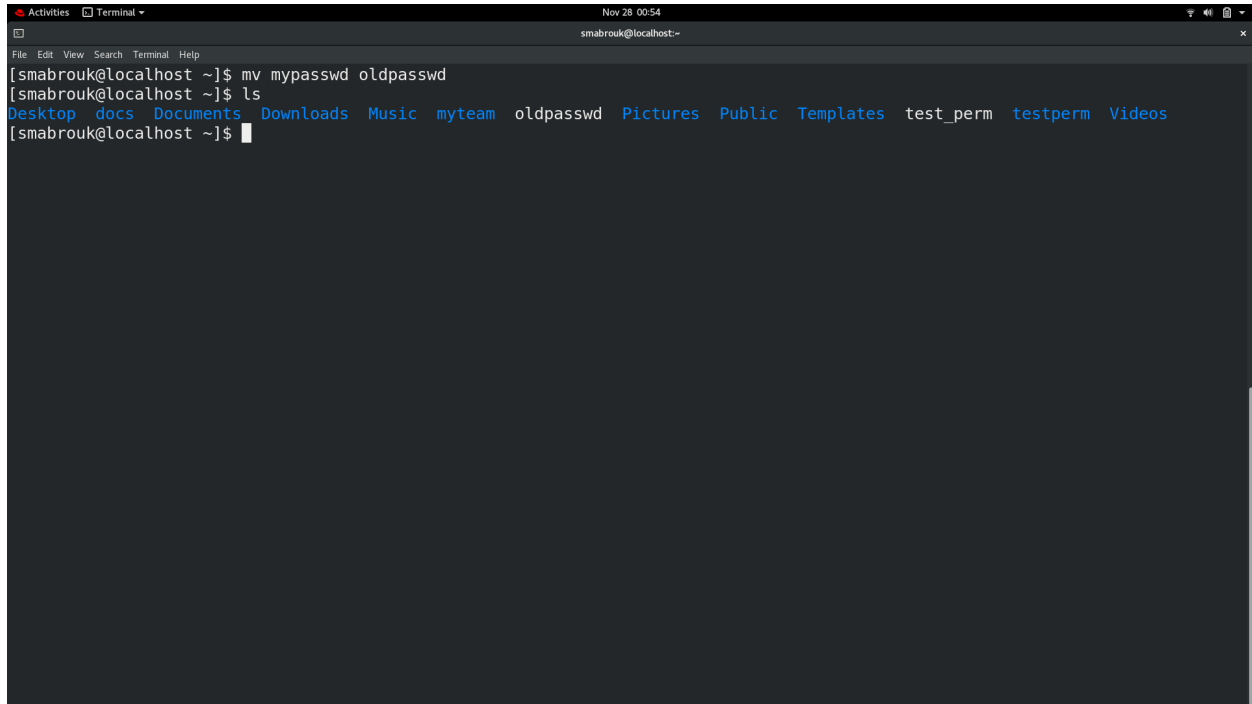
Absolute Path: /home/smabrouk/docs/mycv

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



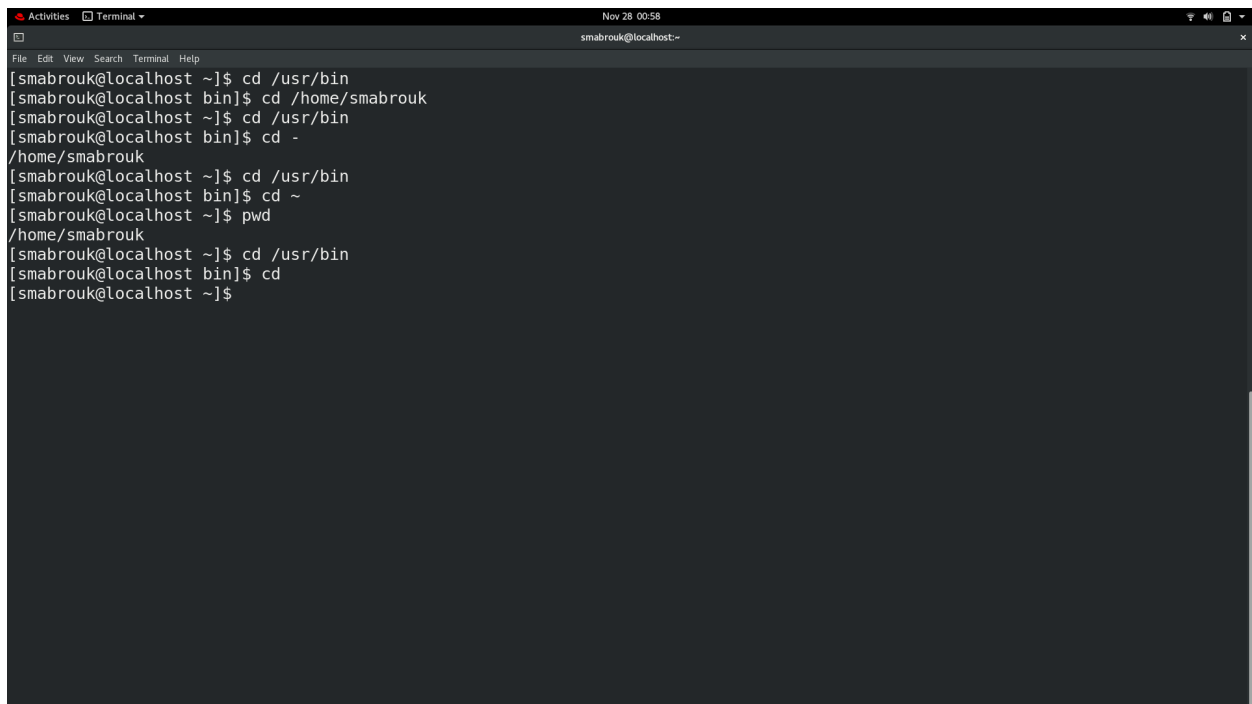
```
Nov 28 00:51
smabrouk@localhost:~
File Edit View Search Terminal Help
[smabrouk@localhost ~]$ cp -R /etc/passwd /home/smabrouk/mypasswd
[smabrouk@localhost ~]$ ls
Desktop  Documents  Music      myteam    Pictures  Templates  testperm
docs     Downloads  mypasswd  oldpasswd Public    test_perm  Videos
[smabrouk@localhost ~]$
```

6. Rename this new file to be oldpasswd.

A terminal window titled 'Terminal' with a dark background. The prompt is '[smabrouk@localhost ~]'. The user enters 'mv mypasswd oldpasswd'. The prompt changes to '[smabrouk@localhost ~]'. The user enters 'ls'. The terminal displays a list of files and directories: Desktop, docs, Documents, Downloads, Music, myteam, oldpasswd, Pictures, Public, Templates, test_perm, testperm, and Videos. The prompt returns to '[smabrouk@localhost ~]\$' with a cursor.

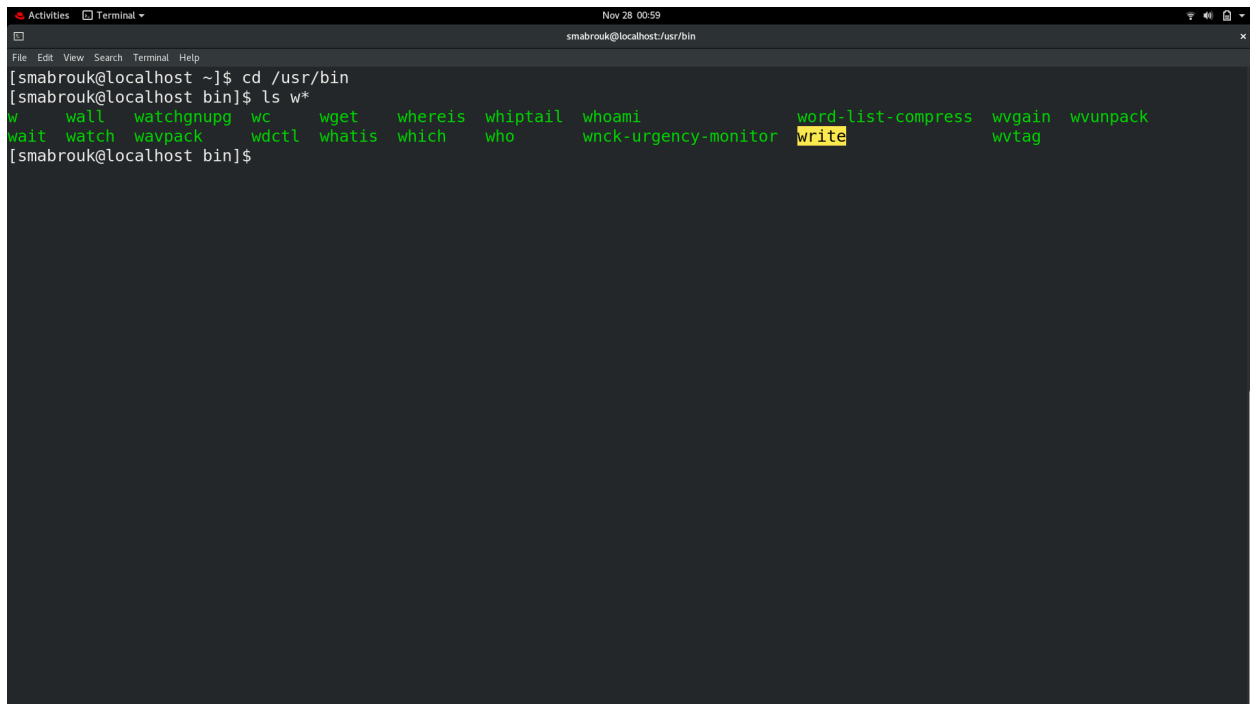
```
[smabrouk@localhost ~]$ mv mypasswd oldpasswd
[smabrouk@localhost ~]$ ls
Desktop  docs  Documents  Downloads  Music  myteam  oldpasswd  Pictures  Public  Templates  test_perm  testperm  Videos
[smabrouk@localhost ~]$
```

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

A terminal window titled 'Terminal' with a dark background. The prompt is '[smabrouk@localhost ~]'. The user enters 'cd /usr/bin'. The prompt changes to '[smabrouk@localhost bin]'. The user enters 'cd /home/smaabrouk'. The prompt changes to '[smabrouk@localhost ~]'. The user enters 'cd /usr/bin'. The prompt changes to '[smabrouk@localhost bin]'. The user enters 'cd -'. The terminal displays '/home/smaabrouk'. The prompt changes to '[smabrouk@localhost ~]'. The user enters 'cd /usr/bin'. The prompt changes to '[smabrouk@localhost bin]'. The user enters 'cd ~'. The prompt changes to '[smabrouk@localhost ~]'. The user enters 'pwd'. The terminal displays '/home/smaabrouk'. The prompt changes to '[smabrouk@localhost ~]'. The user enters 'cd /usr/bin'. The prompt changes to '[smabrouk@localhost bin]'. The user enters 'cd'. The prompt changes to '[smabrouk@localhost ~]'. The user enters '\$'.

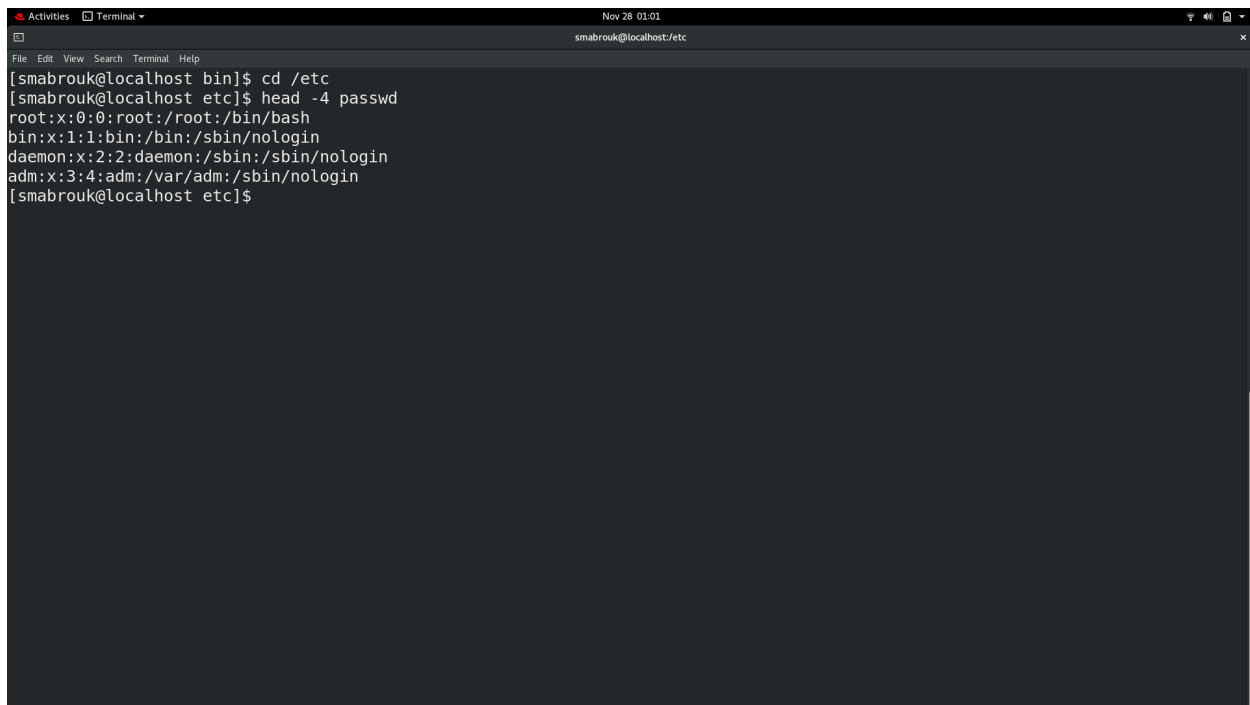
```
[smabrouk@localhost ~]$ cd /usr/bin
[smabrouk@localhost bin]$ cd /home/smaabrouk
[smabrouk@localhost ~]$ cd /usr/bin
[smabrouk@localhost bin]$ cd -
/home/smaabrouk
[smabrouk@localhost ~]$ cd /usr/bin
[smabrouk@localhost bin]$ cd ~
[smabrouk@localhost ~]$ pwd
/home/smaabrouk
[smabrouk@localhost ~]$ cd /usr/bin
[smabrouk@localhost bin]$ cd
[smabrouk@localhost ~]$
```

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



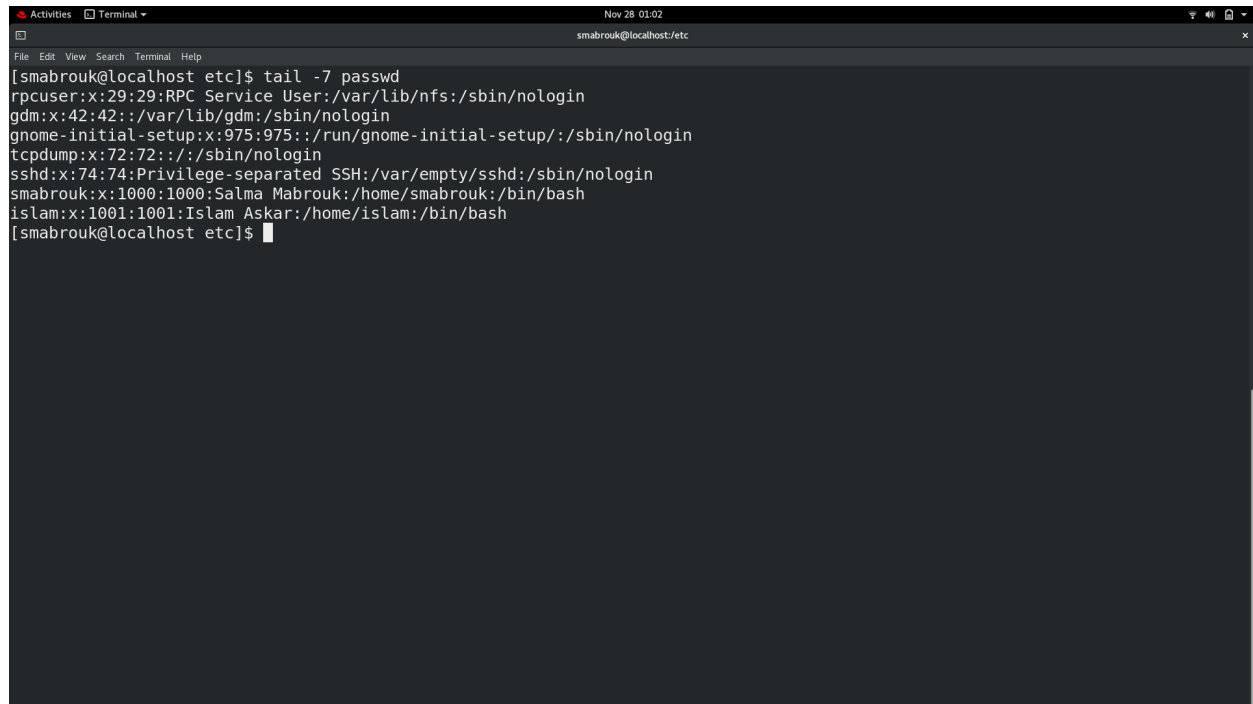
```
Nov 28 00:59
smabrouk@localhost: /usr/bin
File Edit View Search Terminal Help
[smabrouk@localhost ~]$ cd /usr/bin
[smabrouk@localhost bin]$ ls w*
w      wall      watchgnupg  wc      wget      whereis  whiptail  whoami      word-list-compress  wvgain  wvunpack
wait   watch   wavpack     wdctl   whatis    which    who        wnck-urgency-monitor  write      wvtag
[smabrouk@localhost bin]$
```

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



```
Nov 28 01:01
smabrouk@localhost: /etc
File Edit View Search Terminal Help
[smabrouk@localhost bin]$ cd /etc
[smabrouk@localhost etc]$ head -4 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
[smabrouk@localhost etc]$
```

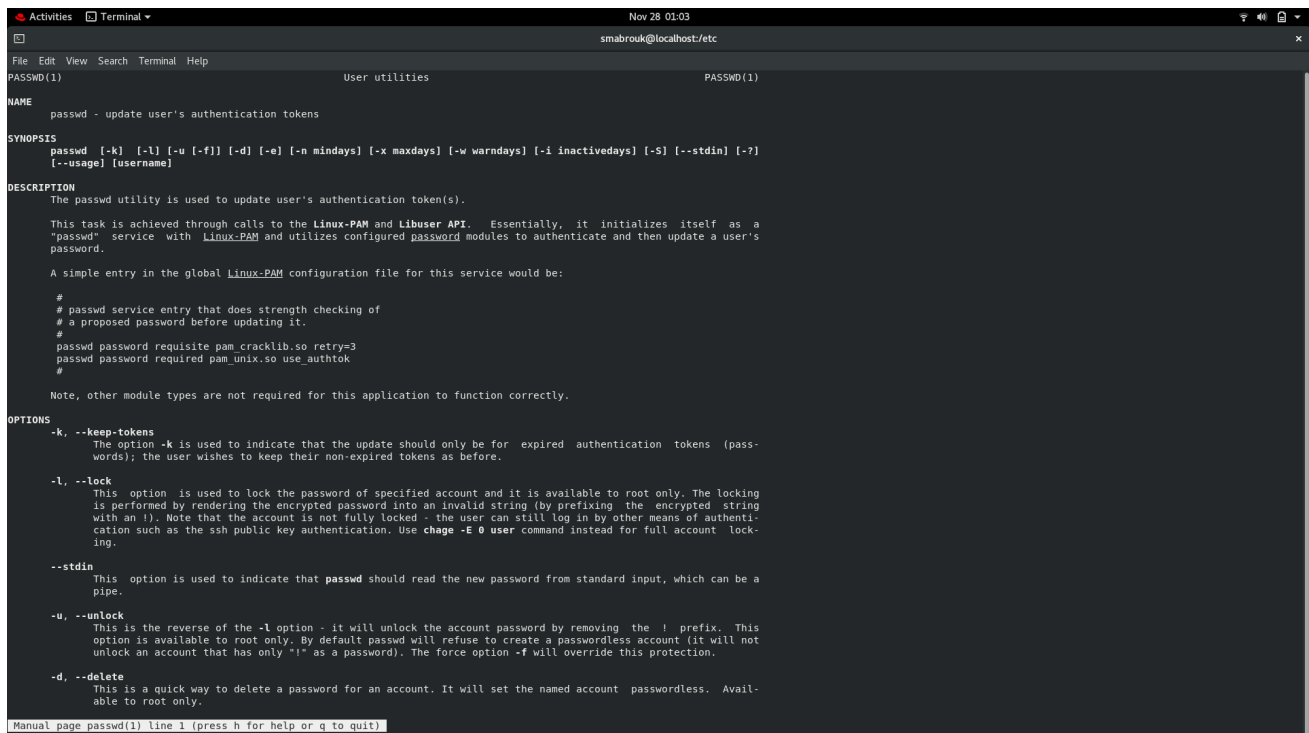
10. Display the last 7 lines of /etc/passwd



```
Nov 28 01:02
smabrouk@localhost/etc
File Edit View Search Terminal Help
[smabrouk@localhost etc]$ tail -7 passwd
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
gdm:x:42:42:./var/lib/gdm:/sbin/nologin
gnome-initial-setup:x:975:975:./run/gnome-initial-setup:/sbin/nologin
tcpdump:x:72:72:./sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin
smabrouk:x:1000:1000:Salma Mabrouk:/home/smabrouk:/bin/bash
islam:x:1001:1001:Islam Askar:/home/islam:/bin/bash
[smabrouk@localhost etc]$
```

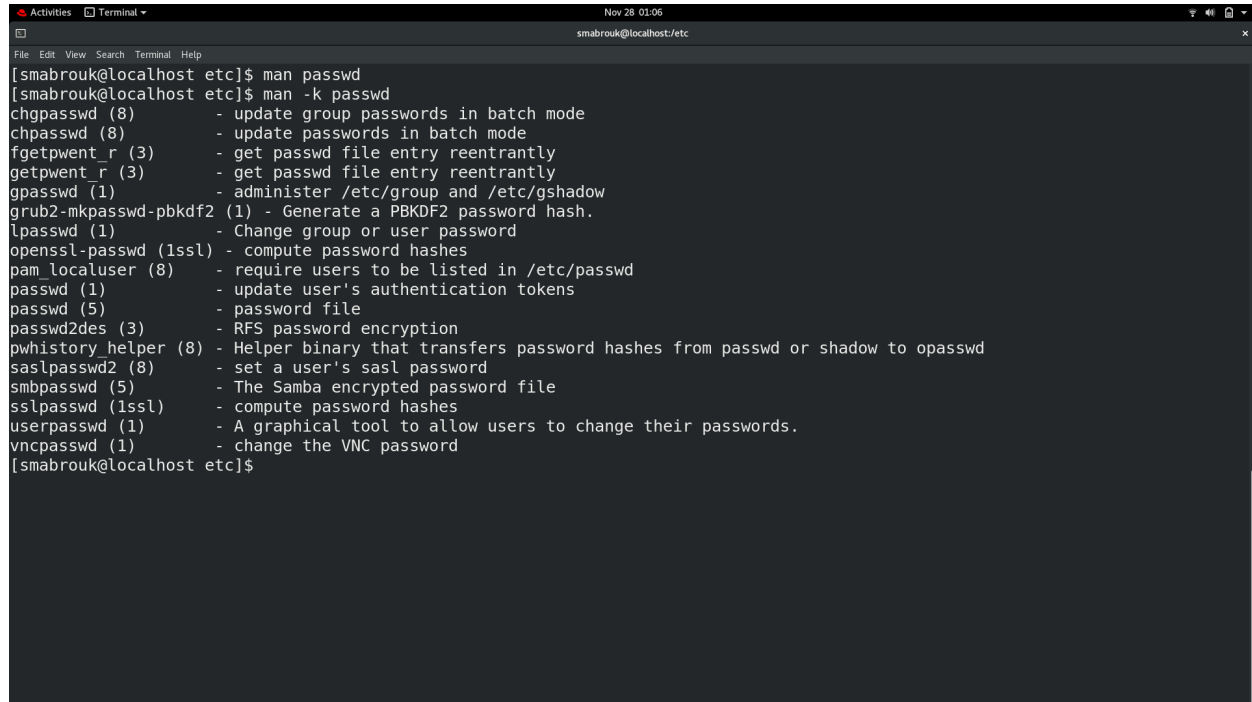
11. Display the man pages of passwd the command and the file sequentially in one command.

12. Display the man page of the passwd file.



```
Nov 28 01:03
smabrouk@localhost/etc
File Edit View Search Terminal Help
PASSWD(1) User utilities PASSWD(1)
NAME
passwd - update user's authentication tokens
SYNOPSIS
passwd [-k] [-l] [-u [-f]] [-d] [-e] [-n mindays] [-x maxdays] [-w warndays] [-i inactivedays] [-S] [--stdin] [-?]
[--usage] [username]
DESCRIPTION
The passwd utility is used to update user's authentication token(s).
This task is achieved through calls to the Linux-PAM and Libuser API. Essentially, it initializes itself as a
"passwd" service with Linux-PAM and utilizes configured password modules to authenticate and then update a user's
password.
A simple entry in the global Linux-PAM configuration file for this service would be:
#
# passwd service entry that does strength checking of
# a proposed password before updating it.
#
passwd password requisite pam_cracklib.so retry=3
passwd password required pam_unix.so use_authtok
#
Note, other module types are not required for this application to function correctly.
OPTIONS
-k, --keep-tokens
The option -k is used to indicate that the update should only be for expired authentication tokens (pass-
words); the user wishes to keep their non-expired tokens as before.
-l, --lock
This option is used to lock the password of specified account and it is available to root only. The locking
is performed by rendering the encrypted password into an invalid string (by prefixing the encrypted string
with an !). Note that the account is not fully locked - the user can still log in by other means of authenti-
cation such as the ssh public key authentication. Use chage -E 0 user command instead for full account lock-
ing.
--stdin
This option is used to indicate that passwd should read the new password from standard input, which can be a
pipe.
-u, --unlock
This is the reverse of the -l option - it will unlock the account password by removing the ! prefix. This
option is available to root only. By default passwd will refuse to create a passwordless account (it will not
unlock an account that has only "!" as a password). The force option -f will override this protection.
-d, --delete
This is a quick way to delete a password for an account. It will set the named account passwordless. Avail-
able to root only.
Manual page passwd(1) 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.



```
Nov 28 01:06
smabrouk@localhost/etc
File Edit View Search Terminal Help
[smabrouk@localhost etc]$ man passwd
[smabrouk@localhost etc]$ man -k passwd
chgpasswd (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
grub2-mkpasswd-pbkdf2 (1) - Generate a PBKDF2 password hash.
lpasswd (1)       - Change group or user password
openssl-passwd (1ssl) - compute password hashes
pam_localuser (8) - require users to be listed in /etc/passwd
passwd (1)        - update user's authentication tokens
passwd (5)        - password file
passwd2des (3)    - RFS password encryption
pwhistory helper (8) - Helper binary that transfers password hashes from passwd or shadow to opasswd
saslpaswd2 (8)    - set a user's sasl password
smbpasswd (5)     - The Samba encrypted password file
sslpaswd (1ssl)   - compute password hashes
userpasswd (1)    - A graphical tool to allow users to change their passwords.
vncpasswd (1)     - change the VNC password
[smabrouk@localhost etc]$
```