2-what is the difference between cat and more:

Cat to show the content of the file

More to show the content of the file screen by screen
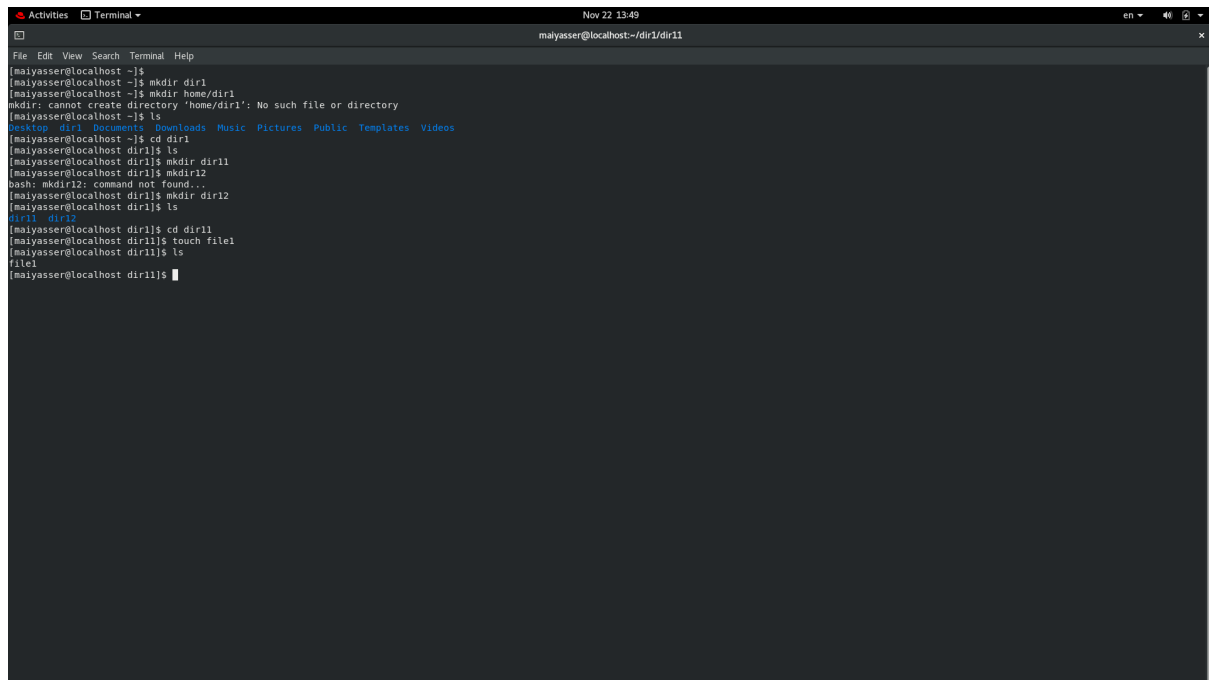
——

3-what is the difference between rm and rmdir using man
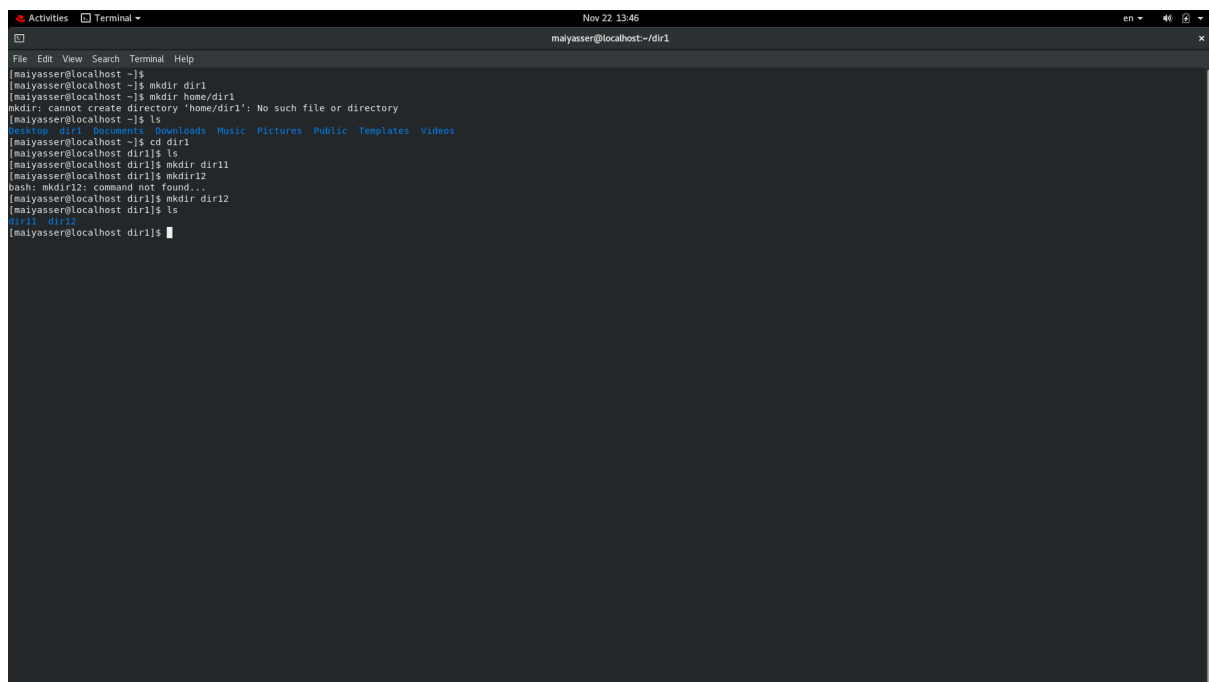
The rm command removes complete directories, including subdirectories and files. The rmdir command removes empty directories.

——

4- create directory tree

```
[maiyasser@localhost ~]$
[maiyasser@localhost ~]$ mkdir dir1
[maiyasser@localhost ~]$ mkdir home/dir1
mkdir: cannot create directory 'home/dir1': No such file or directory
[maiyasser@localhost ~]$ ls
Desktop  dir1  Documents  Downloads  Music  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$ cd dir1
[maiyasser@localhost dir1]$ ls
[maiyasser@localhost dir1]$ mkdir dir11
[maiyasser@localhost dir1]$ mkdir12
bash: mkdir12: command not found...
[maiyasser@localhost dir1]$ mkdir dir12
[maiyasser@localhost dir1]$ ls
dir11  dir12
[maiyasser@localhost dir1]$ cd dir11
[maiyasser@localhost dir11]$ touch file1
[maiyasser@localhost dir11]$ ls
file1
[maiyasser@localhost dir11]$ cd docs
bash: cd: docs: No such file or directory
[maiyasser@localhost dir11]$ cd ~
[maiyasser@localhost ~]$ ls
Desktop  dir1  Documents  Downloads  Music  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$ mkdir docs
[maiyasser@localhost ~]$ cd docs
[maiyasser@localhost docs]$ mkdir mycv
[maiyasser@localhost docs]$ ls
mycv
[maiyasser@localhost docs]$ touch mycv
[maiyasser@localhost docs]$ ls
mycv
[maiyasser@localhost docs]$
```

—--

A- remove dir11 in one step


```
[maiyasser@localhost ~]$ rm -r  dir11
rm: cannot remove 'dir11': No such file or directory
[maiyasser@localhost ~]$ cd dir1
[maiyasser@localhost dir1]$ rm -r dir11
[maiyasser@localhost dir1]$ ls
dir12
[maiyasser@localhost dir1]$
```

What did i noticed: could not remove the directory until i was in the parent directory that contains the directory
How i over came it: moved to the parent directory first.

—--

B- try to remove dir12 using rmdir -p


```
[maiyasser@localhost dir1]$ cd ~
[maiyasser@localhost ~]$ rmdir -p dir12
rmdir: failed to remove 'dir12': No such file or directory
[maiyasser@localhost ~]$ ls
Desktop  dir1  dirtest  docs  Documents  Downloads  Music  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$ cd dir1
[maiyasser@localhost dir1]$ ls
dir12
[maiyasser@localhost dir1]$ rmdir -p dir1/dir12
rmdir: failed to remove 'dir1/dir12': No such file or directory
[maiyasser@localhost dir1]$ cd ~
[maiyasser@localhost ~]$ rmdir -p dir1/dir12
[maiyasser@localhost ~]$ ls
Desktop  dirtest  docs  Documents  Downloads  Music  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$
```

C- the absolute and relative path for mycv file
Absolute


```
[maiyasser@localhost ~]$ pwd
/home/maiyasser
[maiyasser@localhost ~]$ cd /home/maiyasser/docs
[maiyasser@localhost docs]$ ls
mycv
[maiyasser@localhost docs]$ cd ~
[maiyasser@localhost ~]$ ls docs
mycv
[maiyasser@localhost ~]$ pwd
/home/maiyasser
[maiyasser@localhost ~]$ ls docs
mycv
[maiyasser@localhost ~]$ cat mycv
cat: mycv: No such file or directory
[maiyasser@localhost ~]$ cd docs
[maiyasser@localhost docs]$ cat mycv
[maiyasser@localhost docs]$
```

Relative


```
[maiyasser@localhost ~]$ pwd
/home/maiyasser
[maiyasser@localhost ~]$ ls docs/mycv
docs/mycv
[maiyasser@localhost ~]$ cat docs/mycv
[maiyasser@localhost ~]$
```

5-


```
[maiyasser@localhost ~]$ cp /etc/passwd mypasswd
[maiyasser@localhost ~]$ cat mypasswd
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
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:65534:65534:Kernel Overflow User:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
systemd-coredump:x:999:997:systemd Core Dumper:/:/sbin/nologin
systemd-resolve:x:193:193:systemd Resolver:/:/sbin/nologin
tss:x:59:59:Account used for TPM access:/dev/null:/sbin/nologin
polkitd:x:998:996:User for polkitd:/:/sbin/nologin
geoclue:x:997:995:User for geoclue:/var/lib/geoclue:/sbin/nologin
rtkit:x:172:172:RealtimeKit:/proc:/sbin/nologin
pipewire:x:996:992:PipeWire System Daemon:/var/run/pipewire:/sbin/nologin
pulse:x:171:171:PulseAudio System Daemon:/var/run/pulse:/sbin/nologin
qemu:x:107:107:qemu user:/:/sbin/nologin
clevis:x:995:989:Clevis Decryption Framework unprivileged user:/var/cache/clevis:/sbin/nologin
usbmuxd:x:113:113:usbmuxd user:/:/sbin/nologin
unbound:x:994:988:Unbound DNS resolver:/etc/unbound:/sbin/nologin
gluster:x:993:987:GlusterFS daemons:/run/gluster:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
avahi:x:70:70:Avahi mDNS/DNS-SD Stack:/var/run/avahi-daemon:/sbin/nologin
chrony:x:992:986:/var/lib/chrony:/sbin/nologin
setroubleshoot:x:991:984:/var/lib/setroubleshoot:/sbin/nologin
saslauth:x:990:76:Saslauthd user:/run/saslauthd:/sbin/nologin
libstoragemgmt:x:989:983:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin
dnsmasq:x:981:981:Dnsmasq DHCP and DNS server:/var/lib/dnsmasq:/sbin/nologin
radvd:x:75:75:radvd user:/:/sbin/nologin
sssd:x:980:980:User for sssd:/:/sbin/nologin
cockpit-ws:x:979:979:User for cockpit web service:/nonexisting:/sbin/nologin
cockpit-wsinstance:x:978:978:User for cockpit-ws instances:/nonexisting:/sbin/nologin
flatpak:x:977:977:User for flatpak system helper:/:/sbin/nologin
colord:x:976:976:User for colord:/var/lib/colord:/sbin/nologin
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
maiyasser:x:1000:1000:maiyasser:/home/maiyasser:/bin/bash
[maiyasser@localhost ~]$
```

6-

```
[maiyasser@localhost ~]$ mv mypasswd oldpasswd
[maiyasser@localhost ~]$ cat oldpasswd
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
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:65534:65534:Kernel Overflow User:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
systemd-coredump:x:999:997:systemd Core Dumper:/:/sbin/nologin
systemd-resolve:x:193:193:systemd Resolver:/:/sbin/nologin
tss:x:59:59:Account used for TPM access:/dev/null:/sbin/nologin
polkitd:x:998:996:User for polkitd:/:/sbin/nologin
geoclue:x:997:995:User for geoclue:/var/lib/geoclue:/sbin/nologin
rtkit:x:172:172:RealtimeKit:/proc:/sbin/nologin
pipewire:x:996:992:PipeWire System Daemon:/var/run/pipewire:/sbin/nologin
pulse:x:171:171:PulseAudio System Daemon:/var/run/pulse:/sbin/nologin
qemu:x:107:107:qemu user:/:/sbin/nologin
clevis:x:995:989:Clevis Decryption Framework unprivileged user:/var/cache/clevis:/sbin/nologin
usbmuxd:x:113:113:usbmuxd user:/:/sbin/nologin
unbound:x:994:988:Unbound DNS resolver:/etc/unbound:/sbin/nologin
gluster:x:993:987:GlusterFS daemons:/run/gluster:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
avahi:x:70:70:Avahi mDNS/DNS-SD Stack:/var/run/avahi-daemon:/sbin/nologin
chrony:x:992:986:/var/lib/chrony:/sbin/nologin
setroubleshoot:x:991:984:/var/lib/setroubleshoot:/sbin/nologin
saslauth:x:990:76:Saslauthd user:/run/saslauthd:/sbin/nologin
libstoragemgmt:x:989:983:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin
dnsmasq:x:981:981:Dnsmasq DHCP and DNS server:/var/lib/dnsmasq:/sbin/nologin
radvd:x:75:75:radvd user:/:/sbin/nologin
sssd:x:980:980:User for sssd:/:/sbin/nologin
cockpit-ws:x:979:979:User for cockpit web service:/nonexisting:/sbin/nologin
cockpit-wsinstance:x:978:978:User for cockpit-ws instances:/nonexisting:/sbin/nologin
flatpak:x:977:977:User for flatpak system helper:/:/sbin/nologin
colord:x:976:976:User for colord:/var/lib/colord:/sbin/nologin
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
maiyasser:x:1000:1000:maiyasser:/home/maiyasser:/bin/bash
[maiyasser@localhost ~]$
```

7-


```
[maiyasser@localhost ~]$ cd /usr/bin
[maiyasser@localhost bin]$ pwd
/usr/bin
[maiyasser@localhost bin]$ cd ~
[maiyasser@localhost ~]$ ls
Desktop  dirtest  docs  Documents  Downloads  Music  oldpasswd  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$
```

```
[maiyasser@localhost /]$ cd /usr/bin
[maiyasser@localhost bin]$ cd ../home/maiyasser/
bash: cd: ../home/maiyasser/: No such file or directory
[maiyasser@localhost bin]$ cd ../home/maiyasser
bash: cd: ../home/maiyasser: No such file or directory
[maiyasser@localhost bin]$ cd ../../
[maiyasser@localhost /]$ cd /usr/bin
[maiyasser@localhost bin]$ cd ../../home/maiyasser
[maiyasser@localhost ~]$ ls
Desktop  dirtest  docs  Documents  Downloads  Music  oldpasswd  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$ cd /usr/bin
[maiyasser@localhost bin]$ cd /home/maiyasser
[maiyasser@localhost ~]$ ls
Desktop  dirtest  docs  Documents  Downloads  Music  oldpasswd  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$ cd /usr/bin
[maiyasser@localhost bin]$ cd /home
[maiyasser@localhost home]$ cd /maiyasser
bash: cd: /maiyasser: No such file or directory
[maiyasser@localhost home]$ cd maiyasser
[maiyasser@localhost ~]$ ls
Desktop  dirtest  docs  Documents  Downloads  Music  oldpasswd  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$
```

```
[maiyasser@localhost ~]$ cd /usr/bin
[maiyasser@localhost bin]$ cd
[maiyasser@localhost ~]$ ls
Desktop  dirtest  docs  Documents  Downloads  Music  oldpasswd  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$
```

8-


```
[maiyasser@localhost ~]$ cd /usr/bin
[maiyasser@localhost bin]$ ls w*
w  wait  wall  watch  watchgnupg  wavpack  wc  wdctl  wget  whatis  whereis  which  whiptail  who  whoami  wmck-urgency-monitor  word-list-compress  write  wvgain  wvtag  wvunpack
[maiyasser@localhost bin]$
```

9-

```
[maiyasser@localhost bin]$ cd ~
[maiyasser@localhost ~]$ ls
Desktop  dirtest  docs  Documents  Downloads  Music  oldpasswd  Pictures  Public  Templates  Videos
[maiyasser@localhost ~]$ cd /
[maiyasser@localhost /]$ cd /etc/passwd
bash: cd: /etc/passwd: Not a directory
[maiyasser@localhost /]$ cd /etc
[maiyasser@localhost etc]$ more -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
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
[maiyasser@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
[maiyasser@localhost etc]$
```

10-


```
[maiyasser@localhost etc]$ tail -7 passwd
colord:x:976:976:User for colord:/var/lib/colord:/sbin/nologin
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
maiyasser:x:1000:1000:maiyasser:/home/maiyasser:/bin/bash
[maiyasser@localhost etc]$
```

11-

maiyasser@localhost:~   ×
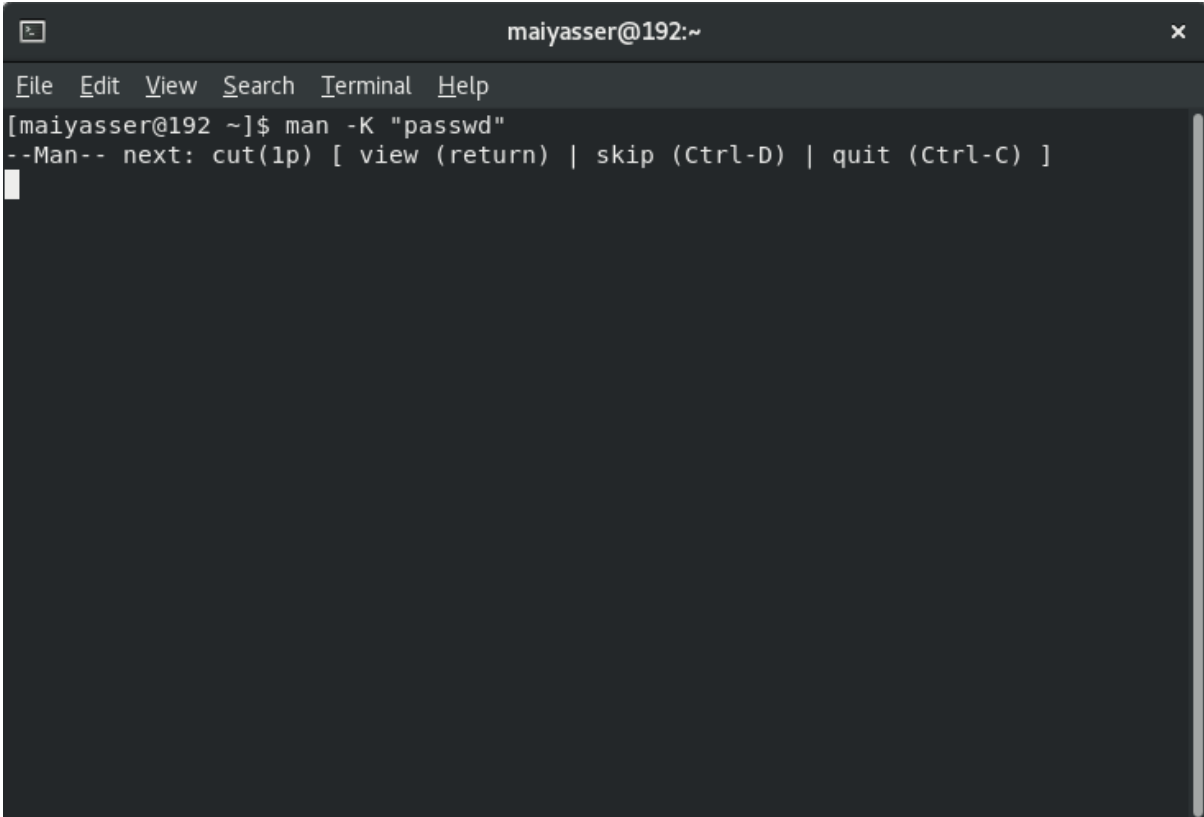
File Edit View Search Terminal Help

```
[maiyasser@localhost ~]$ man passwd; cat /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
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:65534:65534:Kernel Overflow User:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
systemd-coredump:x:999:997:systemd Core Dumper:/:/sbin/nologin
systemd-resolve:x:193:193:systemd Resolver:/:/sbin/nologin
tss:x:59:59:Account used for TPM access:/dev/null:/sbin/nologin
polkitd:x:998:996:User for polkitd:/:/sbin/nologin
geoclue:x:997:995:User for geoclue:/var/lib/geoclue:/sbin/nologin
rtkit:x:172:172:RealtimeKit:/proc:/sbin/nologin
pipewire:x:996:992:PipeWire System Daemon:/var/run/pipewire:/sbin/nologin
pulse:x:171:171:PulseAudio System Daemon:/var/run/pulse:/sbin/nologin
qemu:x:107:107:qemu user:/:/sbin/nologin
clevis:x:995:989:Clevis Decryption Framework unprivileged user:/var/cache/clevis:/sbin/nologin
usbmuxd:x:113:113:usbmuxd user:/:/sbin/nologin
unbound:x:994:988:Unbound DNS resolver:/etc/unbound:/sbin/nologin
gluster:x:993:987:GlusterFS daemons:/run/gluster:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
avahi:x:70:70:Avahi mDNS/DNS-SD Stack:/var/run/avahi-daemon:/sbin/nologin
chrony:x:992:986:/var/lib/chrony:/sbin/nologin
setroubleshoot:x:991:984:/var/lib/setroubleshoot:/sbin/nologin
saslauth:x:990:76:Saslauthd user:/run/saslauthd:/sbin/nologin
libstoragemgmt:x:989:983:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin
dnsmasq:x:981:981:Dnsmasq DHCP and DNS server:/var/lib/dnsmasq:/sbin/nologin
radvd:x:75:75:radvd user:/:/sbin/nologin
sssd:x:980:980:User for sssd:/:/sbin/nologin
cockpit-ws:x:979:979:User for cockpit web service:/nonexisting:/sbin/nologin
cockpit-wsinstance:x:978:978:User for cockpit-ws instances:/nonexisting:/sbin/nologin
flatpak:x:977:977:User for flatpak system helper:/:/sbin/nologin
colord:x:976:976:User for colord:/var/lib/colord:/sbin/nologin
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
maiyasser:x:1000:1000:maiyasser:/home/maiyasser:/bin/bash
[maiyasser@localhost ~]$ █
```

12-

maiyasser@localhost:~   ×

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 authenti-
       cate 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 (passwords); 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 prefix-
              ing  the  encrypted  string  with  an !). Note that the account is not fully locked - the user can still log in by other means of authentication such as the ssh public key authentication. Use
              chage -E 0 user command instead for full account locking.

       --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 password-
              less 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. Available to root only.

              Note that if the password was locked, this implicitly removes the password lock as well.

       -e, --expire
              This is a quick way to expire a password for an account. The user will be forced to change the password during the next login attempt.  Available to root only.

       -f, --force
              Force the specified operation.

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

13-


```
[maiyasser@192 ~]$ man -K "passwd"
--Man-- next: cut(1p) [ view (return) | skip (Ctrl-D) | quit (Ctrl-C) ]
```