Lab1

2. What is the different between cat and more command?

Cat : prints file contents all at once, but more: prints page by page.

3. What is the command that will show system info? uname

4. What is the command that will print current timestamp? date

5. What is the command that will print calendar of December 2001? cal 12 2001

6. What is the command that will create file at current directory? touch file1.txt

7. What is the command that will print "hello world" at screen? echo "hello world"

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

rm: removes files by default and also directories when adding –recursive, --dir removes empty directories

rmdir: removes empty directories only

9. Display the man page of passwd command

```
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:
```

Lab2

1. Create the following hierarchy under your home directory:

```
diana@diana: ~/dir1/dir11                        Q  ≡  —  □  ✕

diana@diana:~/Documents$ cd ..
diana@diana:~$ mkdir dir1
diana@diana:~$ mkdir docs
diana@diana:~$ docs
docs: command not found
diana@diana:~$ ./docs/
bash: ./docs/: Is a directory
diana@diana:~$ cd docs
diana@diana:~/docs$ mkdir mycv
diana@diana:~/docs$ cd ..
diana@diana:~$ dir1
Command 'dir1' not found, did you mean:
  command 'dir' from deb coreutils (8.32-4.1ubuntu1)
Try: sudo apt install <deb name>
diana@diana:~$ cd dir1
diana@diana:~/dir1$ mkdir dir12
diana@diana:~/dir1$ mkdir dir11
diana@diana:~/dir1$ dir11
dir11: command not found
diana@diana:~/dir1$ cd dir11
diana@diana:~/dir1/dir11$ touch file1.txt
diana@diana:~/dir1/dir11$
```

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

```
diana@diana:~/dir1$ rm -r dir11
diana@diana:~/dir1$
```

It deleted the directory and the file inside it without warning.

To overcome this:

```
diana@diana:~/dir1$ rm -ri dir12
rm: remove directory 'dir12'? no
diana@diana:~/dir1$
```

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

```
diana@diana:~/dir1$ cp /etc/passwd ~/mypasswd
diana@diana:~/dir1$
```

4. Rename this new file (which at your home) to be oldpasswd


```
diana@diana:~/Desktop$ mv ~/mypasswd ~/oldpasswd
diana@diana:~/Desktop$
```
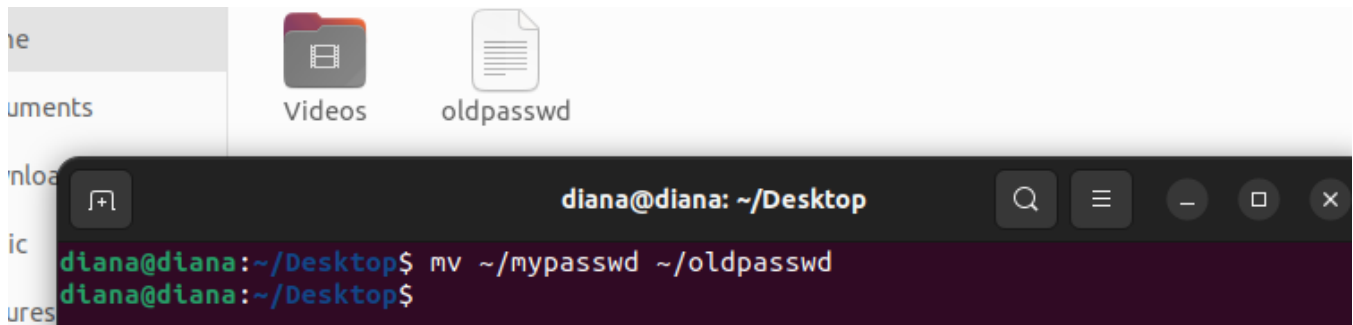
5. Write the command which display the man page of the passwd file"/etc/passwd".

```
diana@diana:~/Desktop$ man 5 passwd
diana@diana:~/Desktop$
```

```
PASSWD(5)                         File Formats and Conversions                         PASSWD(5)

NAME
       passwd - the password file

DESCRIPTION
       /etc/passwd contains one line for each user account, with seven fields delimited by colons (":"). These fields are:

       •   login name

       •   optional encrypted password

       •   numerical user ID

       •   numerical group ID

       •   user name or comment field

       •   user home directory

       •   optional user command interpreter

       If the password field is a lower-case "x", then the encrypted password is actually stored in the shadow(5) file instead;
       there must be a corresponding line in the /etc/shadow file, or else the user account is invalid.

       The encrypted password field may be empty, in which case no password is required to authenticate as the specified login
       name. However, some applications which read the /etc/passwd file may decide not to permit any access at all if the
       password field is blank.

       A password field which starts with an exclamation mark means that the password is locked. The remaining characters on the
       line represent the password field before the password was locked.

       Refer to crypt(3) for details on how this string is interpreted.
```

6. Write the command which display a list of all the commands that contain the keyword "passwd" in their man/manual page.

```
diana@diana:~$ man -K passwd
```

```
OPENSSL-CMDS(1SSL)                 OpenSSL                 OPENSSL-CMDS(1SSL)

NAME
       asn1parse, ca, ciphers, cms, crl, crl2pkcs7, dgst, dhparam, dsa,
       dsaparam, ec, ecparam, enc, engine, errstr, gendsa, genpkey, genrsa,
       info, kdf, mac, nseq, ocsp, passwd, pkcs12, pkcs7, pkcs8, pkey,
       pkeyparam, pkeyutl, prime, rand, rehash, req, rsa, rsautl, s_client,
       s_server, s_time, sess_id, smime, speed, spkac, srp, storeutl, ts,
       verify, version, x509 - OpenSSL application commands

SYNOPSIS
       openssl cmd -help | [-option | -option arg] ... [arg] ...

DESCRIPTION
       Every cmd listed above is a (sub-)command of the openssl(1)
       application.  It has its own detailed manual page at openssl-cmd(1).
       For example, to view the manual page for the openssl dgst command, type
       "man openssl-dgst".

OPTIONS
       Among others, every subcommand has a help option.

       -help
           Print out a usage message for the subcommand.

SEE ALSO
       openssl(1), openssl-asn1parse(1), openssl-ca(1), openssl-ciphers(1),
       openssl-cms(1), openssl-crl(1), openssl-crl2pkcs7(1), openssl-dgst(1),
       openssl-dhparam(1), openssl-dsa(1), openssl-dsaparam(1), openssl-ec(1),
       openssl-ecparam(1), openssl-enc(1), openssl-engine(1),
       openssl-errstr(1), openssl-gendsa(1), openssl-genpkey(1),
       openssl-genrsa(1), openssl-info(1), openssl-kdf(1), openssl-mac(1),
       openssl-nseq(1), openssl-ocsp(1), openssl-passwd(1), openssl-pkcs12(1)
```

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

1. By using command: cd
2. By using command: cd /home/diana
3. By using command: cd ~
4. By using command: cd ../../home/diana

8. The output of the command pwd was /home/. Write the absolute and relative path for the file /etc/passwd

The absolute path: /etc/passwd

The relative path: ../../etc/passwd