

Lab 01 – Linux

By: Sharaf

1. Install CentOS /RHEL

- Done

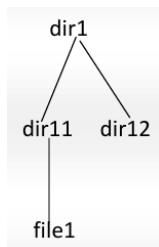
2. What is the difference between cat and more command?

<i>Cat</i>	<i>More</i>
<i>Concatenate files and print on the standard output</i>	<i>Display the contents of a file in a terminal</i>
<i>Show Entire Content In One Shot and Scrolling if content large</i>	<i>Show Content In page suitable to screen and can user show more by 'space' keyboard</i>

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

<i>rm</i>	<i>rmdir</i>
<i>Remove files or directory</i>	<i>Remove empty directories</i>

4. Create the following hierarchy under your home directory:



```
sharaf@sharaf: ~  
sharaf@sharaf:~$ mkdir dir1 dir1/dir11 dir1/dir12  
sharaf@sharaf:~$ touch dir1/dir11/file1  
sharaf@sharaf:~$ tree dir1  
dir1  
├── dir11  
│   └── file1  
└── dir12  
  
3 directories, 1 file  
sharaf@sharaf:~$
```



```
sharaf@sharaf: ~  
sharaf@sharaf:~$ mkdir docs  
sharaf@sharaf:~$ touch docs/mycv  
sharaf@sharaf:~$ tree docs  
docs  
├── mycv  
  
1 directory, 1 file  
sharaf@sharaf:~$
```

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

```
sharaf@sharaf:~$ rmdir dir1/dir11
rmdir: failed to remove 'dir1/dir11': Directory not empty
```

- To Overcome (use -r)

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

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

```
sharaf@sharaf:~$ rmdir -p dir1/dir12
rmdir: failed to remove directory 'dir1': Directory not empty
```

- Dir12 -> Deleted Because it's empty
- Dir1 -> Can't Deleted Because it's not empty

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

Absolute Path	/home/Sharaf/docs/mycv
Relative Path	docs/mycv

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

```
sharaf@sharaf:~$ cp /etc/passwd /home/sharaf/mypasswd
```

6. Rename this new file to be oldpasswd.

```
sharaf@sharaf:~$ mv mypasswd oldpasswd
```

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

1.

```
sharaf@sharaf:/usr/bin$ cd
```
2.

```
sharaf@sharaf:/usr/bin$ cd ~
```
3.

```
sharaf@sharaf:/usr/bin$ cd /home/sharaf
```
4.

```
sharaf@sharaf:/usr/bin$ cd ../../home/sharaf
```

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

```
sharaf@sharaf:~$ cd /usr/bin
sharaf@sharaf:/usr/bin$ ls w*
w      watch      wc      wget      whereis  which.debianutils  who      whoopsie      wireplumber      wpa_passphrase  wpexec
wall   watchgnupg  wdcctl  whatis   which    whiptail           whoami   whoopsie-preferences  word-list-compress  wpctl           write
sharaf@sharaf:/usr/bin$
```

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

```
sharaf@sharaf:~$ head -n4 /etc/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
sharaf@sharaf:~$
```

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

```
sharaf@sharaf:~$ tail -n7 /etc/passwd
polkitd:x:987:987:User for polkitd:/usr/sbin/nologin
rtkit:x:117:119:RealtimeKit,,,:/proc:/usr/sbin/nologin
colord:x:118:120:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
gnome-initial-setup:x:119:65534:/:run/gnome-initial-setup:/bin/false
gdm:x:120:121:Gnome Display Manager:/var/lib/gdm3:/bin/false
nm-openvpn:x:121:122:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
sharaf:x:1000:1000:sharaf:/home/sharaf:/bin/bash
```

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

```
sharaf@sharaf:~$ man -k passwd
chgpaswd (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
gpaswd (1)        - administer /etc/group and /etc/gshadow
grub-mkpasswd-pbkdf2 (1) - generate hashed password for GRUB
ldappaswd (1)     - change the password of an LDAP entry
openssl-paswd (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
pwhistory_helper (8) - Helper binary that transfers password hashes from passwd or shadow to opaswd
update-passwd (8) - safely update /etc/passwd, /etc/shadow and /etc/group
```

```
sharaf@sharaf:~$ man passwd ; man 5 passwd
```

12. Display the man page of the passwd file.

```
sharaf@sharaf:~$ man passwd
```

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

```
sharaf@sharaf:~$ whatis passwd
passwd (1)          - change user password
passwd (1ssl)       - OpenSSL application commands
passwd (5)          - the password file
```