Operating Systems 2

Section 1

Basic Linux terminal commands

A- File management/manipulation commands:

1. **Pwd** : printing current working directory
   This command show the directory we are currently working at.

```
guru99@VirtualBox:~$ pwd
/home/guru99
guru99@VirtualBox:~$
```

present working directory

2. **Cd /tmp:** change directory to the directory we pass after it, in this case tmp.

```
guru99@VirtualBox:~$ cd /tmp
guru99@VirtualBox:/tmp$ cd /bin
guru99@VirtualBox:/bin$ cd /usr
guru99@VirtualBox:/usr$ cd /tmp
guru99@VirtualBox:/tmp$
```

   Cd ~: the cd tiled goes to the home directory.

   Cd /: cd forward slash goes to the root directory.

   Cd /dev/cpu: we can change to subdirectory inside a directory in one command.

   Cd .. : cd double dots return back one level.

3. **Relative path:** here we write the full path of a file after the cd command like that
   Cd /home/fue/Music
   Absolute path: here we move directly to the directory name without **providing the whole path.**
4. **Mv mydirectory newdirectory:** rename the file file1 as file2.

```
home@VirtualBox:~$ mv mydirectory newdirectory
home@VirtualBox:~$ ls
Desktop     Downloads           Music          Pictures  Templates
Documents   examples.desktop    newdirectory   Public    Videos
home@VirtualBox:~$
```

B- Listing:

1. **Ls:** listing the contents of the current directory

```
guru99@VirtualBox:~$ ls
Desktop     Downloads           Music      Public      Videos
Documents   examples.desktop    Pictures   Templates
guru99@VirtualBox:~$
```
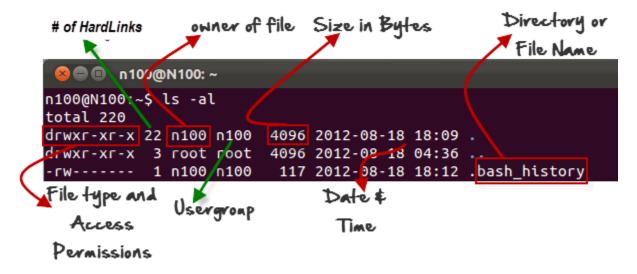
2. **Ls –R:** here we pass an option to the command which list the directories and any subdirectories inside them.

```
guru99@VirtualBox:~$ ls -R
.:
Desktop     Downloads           Music      Public      Videos
Documents   examples.desktop    Pictures   Templates

./Desktop:

./Documents:

./Downloads:

./Music:
English

./Music/English:
Rock   Trans

./Music/English/Rock:
Test.mp3

./Music/English/Trans:

./Pictures:

./Public:

./Templates:

./Videos:
guru99@VirtualBox:~$
```

3. **Ls –a:** here we pass an option to the list command which shows all the files include hidden ones with a dot at the begging of their names.

```
guru99@VirtualBox:~$ ls -a
.                .dmrc              .ICEauthority      sample
..               Documents          .local             sample1
.bash_history    Downloads          .mission-control   sample2
.bash_logout     examples.desktop   Music              Templates
.bashrc          .gconf             Pictures           .thumbnails
.cache           .gnome2            .profile           Videos
.config          .gstreamer-0.10    Public             .Xauthority
.dbus            .gtk-bookmarks     .pulse             .xsession-erro
Desktop          .gvfs              .pulse-cookie
guru99@VirtualBox:~$
```

4. **Ls –al:** list all files including the access type, owner, group, size, and date-time.

# of HardLinks   owner of file   Size in Bytes   Directory or File Name

```
n100@N100: ~
n100@N100:~$ ls -al
total 220
drwxr-xr-x 22 n100 n100  4096 2012-08-18 18:09 .
drwxr-xr-x  3 root root  4096 2012-08-18 04:36 ..
-rw-------  1 n100 n100   117 2012-08-18 18:12 .bash_history
```

File type and Access Permissions   Usergroup   Date & Time

C- **Directories management commands:**

1. **Mkdir:** create new directory taking the name of the directory after it.

```
home@VirtualBox:~$ mkdir mydirectory
home@VirtualBox:~$ ls
Desktop     Downloads          Music        Pictures  Templates
Documents   examples.desktop   mydirectory  Public    Videos
home@VirtualBox:~$
```

2. **Rmdir:** remove directory, but it must be empty or an error message will be shown.

3. **Mv dir1 dir2:** as in files, it rename the directories from dir1 to dir2.

D- **Creating and Writing to files:**

1. **Cat > file1:** create a file named file1 if not exist, and open it for writing in, ctrl+d to exit.
2. **Cat file1:** show the content of file1.
3. **Cat file1 file2 > file3:** concatenate the content of file1 and file2 and put them in file3.

E- **General commands:**
1. **History:** show all the command we wrote within the terminal session.
2. **Clear:** clear the content of the terminal.
3. **Man:** show help about any comment wrote behind it.

Refrence: Basic Linux/Unix Commands with Examples, Guru99

https://www.guru99.com/must-know-linux-commands.html