

PRACTICAL COMPUTING(UCS311)

ASSIGNMENT NO. -1

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1-A) **ls -a** command is used to list out all the hidden files in the system.

```
ananya@ananya-VirtualBox:~$ ls -a
.      .ananya.swp  .bashrc  Desktop  .gnupg  Pictures  .ssh
..     .bash_history .cache   Documents .local  .profile  Templates
ananya .bash_logout .config  Downloads Music    Public    Videos
ananya@ananya-VirtualBox:~$
```

1-B)

List of file size including hidden files : **ls -sa**

```
ananya@ananya-VirtualBox:~$ ls -sa
total 100
 4  .              4  .bashrc      4  .gnupg              4  .profile
 4  ..             4  .cache       4  .local             4  Public
 4  ananya         4  .config      4  Music              4  .ssh
12  .ananya.swp    4  Desktop      4  neeraj             4  Templates
 4  .bash_history  4  Documents    4  Pictures            4  Videos
 4  .bash_logout  4  Downloads    4  'practical computing'
ananya@ananya-VirtualBox:~$
```

List of file size excluding the hidden files : **ls -s**

```
ananya@ananya-VirtualBox:~$ ls -s
total 40
 4  ananya  4  Documents  4  Music    4  'practical computing'  4  Templates
 4  Desktop  4  Downloads  4  Pictures  4  Public          4  Videos
ananya@ananya-VirtualBox:~$
```

1-C)

Sorted (descending order of time and date) file including hidden files : **ls -alt**

```

ananya@ananya-VirtualBox:~$ ls -alt
total 96
-rw----- 1 ananya ananya 2144 Aug  4 20:21 .bash_history
drwxr-xr-x 17 ananya ananya 4096 Aug  4 20:18 .
drw-r-xrwx  2 ananya ananya 4096 Aug  4 20:10 ananya
drwxr-xr-x 11 ananya ananya 4096 Aug  4 19:53 .config
drwx----- 11 ananya ananya 4096 Aug  4 13:30 .cache
drwxrwxr-x  2 ananya ananya 4096 Aug  2 17:28 'practical computing'
drwx-----  3 ananya ananya 4096 Aug  2 16:18 .gnupg
drwx-----  2 ananya ananya 4096 Aug  2 16:18 .ssh
drwxr-xr-x  2 ananya ananya 4096 Aug  2 16:16 Pictures
-rw-----  1 ananya ananya 12288 Aug  1 03:03 .ananya.swp
drwxr-xr-x  2 ananya ananya 4096 Jul 31 03:55 Desktop
drwxr-xr-x  2 ananya ananya 4096 Jul 31 03:55 Documents
drwxr-xr-x  2 ananya ananya 4096 Jul 31 03:55 Downloads
drwxr-xr-x  2 ananya ananya 4096 Jul 31 03:55 Music
drwxr-xr-x  2 ananya ananya 4096 Jul 31 03:55 Public
drwxr-xr-x  2 ananya ananya 4096 Jul 31 03:55 Templates
drwxr-xr-x  2 ananya ananya 4096 Jul 31 03:55 Videos
drwx-----  3 ananya ananya 4096 Jul 31 03:55 .local
-rw-r--r--  1 ananya ananya 3771 Jul 31 03:20 .bashrc
-rw-r--r--  1 ananya ananya  220 Jul 31 03:20 .bash_logout
-rw-r--r--  1 ananya ananya  807 Jul 31 03:20 .profile
drwxr-xr-x  3 root   root   4096 Jul 31 03:20 ..
ananya@ananya-VirtualBox:~$

```

Sorted (descending order time and date) excluding hidden files : **ls -lt**

```

ananya@ananya-VirtualBox:~$ ls -lt
total 40
drw-r-xrwx 2 ananya ananya 4096 Aug  4 20:10 ananya
drwxrwxr-x 2 ananya ananya 4096 Aug  2 17:28 'practical computing'
drwxr-xr-x 2 ananya ananya 4096 Aug  2 16:16 Pictures
drwxr-xr-x 2 ananya ananya 4096 Jul 31 03:55 Desktop
drwxr-xr-x 2 ananya ananya 4096 Jul 31 03:55 Documents
drwxr-xr-x 2 ananya ananya 4096 Jul 31 03:55 Downloads
drwxr-xr-x 2 ananya ananya 4096 Jul 31 03:55 Music
drwxr-xr-x 2 ananya ananya 4096 Jul 31 03:55 Public
drwxr-xr-x 2 ananya ananya 4096 Jul 31 03:55 Templates
drwxr-xr-x 2 ananya ananya 4096 Jul 31 03:55 Videos

```

2-A) ">" – redirection operator is used to **copy the contents of a given file to another file**

```
ananya@ananya-VirtualBox:~$ cat > sample
Hello!!!My name is Ananya Agarwal
ananya@ananya-VirtualBox:~$ cat sample
Hello!!!My name is Ananya Agarwal
ananya@ananya-VirtualBox:~$ cat > sample
I am in sem 3
ananya@ananya-VirtualBox:~$ cat sample
I am in sem 3
ananya@ananya-VirtualBox:~$
```

2-B) ">>" – redirection operator is used to **appends the contents of a given file**

```
ananya@ananya-VirtualBox:~$ cat >> sample
I belong to UP
ananya@ananya-VirtualBox:~$ cat sample
I belong to UP
ananya@ananya-VirtualBox:~$ cat >> sample
My name is Ananya
ananya@ananya-VirtualBox:~$ cat sample
I belong to UP
My name is Ananya
ananya@ananya-VirtualBox:~$
```

3-We can copy the contents of a given file using the **cat** command in Linux.

Syntax:

\$ cat file1 > file2

The above mentioned command copies the content of source file i.e. file1 to the target file i.e. file2.

Example:

```
ananya@ananya-VirtualBox:~$ cat > coe
It has many subgroups
ananya@ananya-VirtualBox:~$ cat coe
It has many subgroups
ananya@ananya-VirtualBox:~$ cat > enc
It has lesser subgroups
ananya@ananya-VirtualBox:~$ cat enc
It has lesser subgroups
ananya@ananya-VirtualBox:~$ cat coe > enc
ananya@ananya-VirtualBox:~$ cat enc
It has many subgroups
ananya@ananya-VirtualBox:~$
```

4-There are two ways to delete a directory in Linux:

Method 1: Using the **rmdir** command

Syntax: **\$ rmdir directoryName**

This command can only be used to delete an empty file

Example:

```
ananya@ananya-VirtualBox:~$ mkdir hello
ananya@ananya-VirtualBox:~$ ls
ananya Desktop Downloads hello Pictures sample Videos
coe Documents enc Music Public Templates
ananya@ananya-VirtualBox:~$ rmdir hello
ananya@ananya-VirtualBox:~$ ls
ananya Desktop Downloads Music Public Templates
coe Documents enc Pictures sample Videos
ananya@ananya-VirtualBox:~$
```

Method-2: Using the **rm** command

Syntax: **\$ rm option directoryName.**

There are two ways to delete a directory using **rm**.

-d: Delete an empty directory

-r: Delete a non-empty directory and all its contents

Example:

```
ananya@ananya-VirtualBox:~$ mkdir hello
ananya@ananya-VirtualBox:~$ ls
ananya Documents hello neeraj 'practical computing' Templates
Desktop Downloads Music Pictures Public Videos
ananya@ananya-VirtualBox:~$ rm -d hello
ananya@ananya-VirtualBox:~$ ls
ananya Documents Music Pictures Public Videos
Desktop Downloads neeraj 'practical computing' Templates
```

5-Linux as well its commands are case sensitive. If we write command in the wrong case, terminal would give an error as **command not found**

Example:

```
ananya@ananya-VirtualBox:~$ ls
ananya Desktop Downloads Music Public Templates
coe Documents enc Pictures sample Videos
ananya@ananya-VirtualBox:~$ LS
LS: command not found
ananya@ananya-VirtualBox:~$
```

6-A) using **cd** command we can change the directory and enter into a particular directory. By using **cd ..** we undo our task.

```
ananya@ananya-VirtualBox:~$ cd ananya
ananya@ananya-VirtualBox:~/ananya$
```

```
ananya@ananya-VirtualBox:~/ananya$ cd ..
ananya@ananya-VirtualBox:~$
```

6-B) creation using **mkdir** command

```
ananya@ananya-VirtualBox:~$ mkdir "practical computing"
ananya@ananya-VirtualBox:~$ ls
c          Documents  Music  Pictures          Public  Videos
Desktop   Downloads  p      'practical computing'  Templates
ananya@ananya-VirtualBox:~$
```

6-C) first enter in the practical computing directory by **cd** then using **touch** or **cat**, we can make our file according to our need.

```
ananya@ananya-VirtualBox:~$ mkdir "practical computing"
ananya@ananya-VirtualBox:~$ ls
ananya    Documents  Music  'practical computing'  Templates
Desktop   Downloads  Pictures  Public                Videos
ananya@ananya-VirtualBox:~$ cd "practical computing"
ananya@ananya-VirtualBox:~/practical computing$ touch commands
ananya@ananya-VirtualBox:~/practical computing$ ls
commands
ananya@ananya-VirtualBox:~/practical computing$
```

6-D)

```
ananya@ananya-VirtualBox:~$ cd "practical computing"
ananya@ananya-VirtualBox:~/practical computing$ cat > commands
1. $pwd - prints the present working directory
2. $ls - list of files and directories in the present working directory
3. $clear - clears terminal view
4. $rmdir - deletes a directory
5. $mkdir - creates new directory in the present working directory or at the specified path
ananya@ananya-VirtualBox:~/practical computing$ cat commands
1. $pwd - prints the present working directory
2. $ls - list of files and directories in the present working directory
3. $clear - clears terminal view
4. $rmdir - deletes a directory
5. $mkdir - creates new directory in the present working directory or at the specified path
ananya@ananya-VirtualBox:~/practical computing$
```

6-E)

```
ananya@ananya-VirtualBox:~$ cd "practical computing"
ananya@ananya-VirtualBox:~/practical computing$ ls
commands
ananya@ananya-VirtualBox:~/practical computing$ cat commands > linuxcommands
ananya@ananya-VirtualBox:~/practical computing$ ls
commands linuxcommands
ananya@ananya-VirtualBox:~/practical computing$
```

6-F) Checking using **cat** command

```
ananya@ananya-VirtualBox:~/practical computing$ cat linuxcommands
1. $pwd - prints the present working directory
2. $ls - list of files and directories in the present working directory
3. $clear - clears terminal view
4. $rmdir - deletes a directory
5. $mkdir - creates new directory in the present working directory or at the specified path
ananya@ananya-VirtualBox:~/practical computing$
```

6-G) **rm** command is used to remove previous file

```
ananya@ananya-VirtualBox:~/practical computing$ ls
commands linuxcommands
ananya@ananya-VirtualBox:~/practical computing$ rm commands
ananya@ananya-VirtualBox:~/practical computing$ ls
linuxcommands
ananya@ananya-VirtualBox:~/practical computing$
```