NETWORKING & SYSTEM ADMINISTRATION LAB

Name: ATHUL VINAYAKUMAR
Roll No:5
Batch: MCA B
Date:25/03/2021

Experiment No: 3

Aim

Familiarization of Linux commands.

Procedure

1. **$pwd:** This command is used to print working directory starting from the root.

    Output:

    ```
    student@S5:~$ pwd
    /home/student
    ```

2. **$mkdir:** This command is used to make new directory.

    Output:

    ```
    student@S5:~$ mkdir athul
    ```

3. **$man:** This command is used to display the user manual of any command that we can run on the terminal.

    Output:

    ```
    student@S5:~$ man ls
    ```

4. **$ls :** It is used to list the contents of current working directory.

    Output:

    ```
    student@S5:~$ ls
    a                          file1.txt
    a1                         file.tht
    achu.txt                   good
    ajce                       gopu.txt
    al                         '<invalid path>'
    albert                     '<invalid path>.layout'
    ```

5. $ls -l: This command is used to list the contents of directory in table format with columns.

Output:

```
student@S5:~$ ls -l
total 308
drwxr-xr-x  2 student student 4096 Jan 18   2020  a
drwxr-xr-x  3 student student 4096 Jan 18   2020  a1
-rw-r--r--  1 student student   15 Jan 16   2020  achu.txt
drwxr-xr-x  3 student student 4096 Feb  7   2019  ajce
drwxr-xr-x  2 student student 4096 Apr  4   2019  al
drwxr-xr-x  2 student student 4096 Jan 22   2020  albert
drwxr-xr-x  2 student student 4096 Mar 28   2019  albin
drwxr-xr-x  2 student student 4096 Feb  3   2020  am
-rw-r--r--  1 student student   15 Jan 23   2020  ama
drwxr-xr-x  2 student student 4096 Feb  3   2020  amal
-rw-r--r--  1 student student   12 Jan 16   2020  amal.txt
drwxr-xr-x  2 student student 4096 Jan 23   2020  amm
-rw-r--r--  1 student student   12 Jan 16   2020  appu.txt
-rw-rw-r--  1 student student   60 Nov  1 11:43  a.py
-rwxr-xr-x  1 student student   75 Jan 18   2020  a.sh
drwxr-xr-x  2 student student 4096 Mar 31 14:09  athul
drwxr-xr-x  2 student student 4096 Jan 18   2020  b
-rw-rw-r--  1 student student  177 Nov  1 13:07  b.py
-rwxr-xr-x  1 student student   76 Jan 18   2020  b.sh
-rw-r--r--  1 student student 1628 Apr  4   2019  clentecho.class
-rw-r--r--  1 student student  897 Apr  4   2019  clentecho.java
-rw-r--r--  1 student student 1016 Apr  4   2019  client.class
-rw-r--r--  1 student student 1595 Apr  4   2019  clientcomm.class
-rw-r--r--  1 student student 1733 Apr  4   2019  clientcomm.java
-rw-r--r--  1 student student  969 Apr  4   2019  client.java
-rw-rw-r--  1 student student   10 Nov 22   2018  Concatenation.c
drwxrwxr-x  2 student student 4096 Jan  3 11:34 'Data science & Machine learning lab'
```

6. $ls -al: This command is used to list files or directories in a table format with extra information with including hidden files or directories.

Output:

```
student@S5:~$ ls -al
total 480
drwxr-xr-x 46 student student  4096 Mar 31 14:09  .
drwxr-xr-x  6 root    root     4096 Jan 13 14:07  ..
drwxr-xr-x  2 student student  4096 Jan 18  2020  a
drwxr-xr-x  3 student student  4096 Jan 18  2020  a1
-rw-r--r--  1 student student    15 Jan 16  2020  achu.txt
drwxr-xr-x  3 student student  4096 Feb  7  2019  ajce
drwxr-xr-x  2 student student  4096 Apr  4  2019  al
drwxr-xr-x  2 student student  4096 Jan 22  2020  albert
drwxr-xr-x  2 student student  4096 Mar 28  2019  albin
drwxr-xr-x  2 student student  4096 Feb  3  2020  am
-rw-r--r--  1 student student    15 Jan 23  2020  ama
drwxr-xr-x  2 student student  4096 Feb  3  2020  amal
-rw-r--r--  1 student student    12 Jan 16  2020  amal.txt
drwxr-xr-x  2 student student  4096 Jan 23  2020  amm
-rw-r--r--  1 student student    12 Jan 16  2020  appu.txt
-rw-rw-r--  1 student student    60 Nov  1 11:43  a.py
-rwxr-xr-x  1 student student    75 Jan 18  2020  a.sh
drwxr-xr-x  2 student student  4096 Mar 31 14:09  athul
```

7.   **$ls -a:** This command is used to list files or directories including hidden files or directories.

Output:

```
student@S5:~$ ls -a
.                                    gopu.txt
..                                   .ICEauthority
a                                    .idlerc
a1                                   '<invalid path>'
achu.txt                             '<invalid path>.layou
ajce                                 .java
al                                   jesna
albert                               leap.sh
albin                                .local
am                                   loop
ama                                  mcas2
amal                                 min.sh
amal.txt                             mkdir
amm                                  mod.sh
appu.txt                             .mozilla
a.py                                 .m.sh.swp
a.sh                                 mul.sh
athul                                multy.sh
```

8.   **$ls -r:** This command is used to display the contents of subdirectories.

Output:

```
student@S5:~$ ls -r
w                        f123.tar.gz
Videos                   f1
Untitled1.ads            examples.desktop
Templates                'er Commands
s.sh                     e
snap                     d.sh
sh.sh                    Downloads
sethu                    Documents
server.java              div.sh
serverecho.java          Desktop
serverecho.class         'Data science & Machine
servercomm.java          Concatenation.c
servercomm.class         client.java
server.class             clientcomm.java
s2mca                    clientcomm.class
PycharmProjects          client.class
Public                   clentecho.java
prime.sh                 clentecho.class
Pictures                 b.sh
pass.sh                  b.py
new                      b
Music                    athul
```

9. **$ls-t:** It is used to list files or directories and sort by last modified date in descending order(biggest to smallest).

Output:

```
student@S5:~$ ls -t
athul                     leap.sh     albert     achu.txt                     serverecho.class
Downloads                 pass.sh     d.sh       gopu.txt                     serverecho.java
```

10. **$cd:** This command is used to change current working directory in linux.

Output:

```
student@S5:~$ cd
```

11. **$cd ..:** This command is used to move to parent directory of current directory.

Output:

```
student@S5:~$ cd ..
```

12. **$cd -:** This command is used to change to previous directory.

Output:

```
student@S5:/home$ cd -
/home/student
```

13. **$cat filename.**type: It is used to display contents on the file.

Output:

```
student@S5:~$ cat
```

14. $cat >filename.type: Its is used to create filename and contents can be added on the terminal itself.

Output:

```
student@S5:~$ cat > a.txt
hello
^Z
[3]+  Stopped                    cat > a.tx
```

15. $cat >>filename.type: It is used to append content to existing file.

Output:

```
student@S5:~$ cat >> a.txt
hello world
^Z
[4]+  Stopped                    cat >> a.t
```

16. $cat filename.type > **filename2**.type: This command is used to copy contents of one file to another file.

Output:

```
student@S5:~$ cat a.txt > b.txt
student@S5:~$ cat b.txt
hello
hello world
```