NETWORKING & SYSTEM ADMINISTRATION LAB

Experiment No.: 3

Aim

Familiarization of basic commands.

Procedure

1. **Pwd**
   Pwd stands for print working directory .it print the path of working directory from starting to the root
   $pwd
   Output:

2. **Mkdir**
   It allows the users to create directories .
   Syntax: mkdir [options]….[directores]
   $mkdir athira
   Output

3. **Ls**
   It will show the full list or content of your directory
   Syntax: $ls

   Options:

   Ls -l:it will show the list in longest format
   Syntax: $ls -l

```
student@S4:~$ ls -l
total 92
-rw-rw-r--  1 student student   16 Nov  1 11:38 1.py
drwxr-xr-x  2 student student 4096 Mar 24 14:28 athira
drwxr-xr-x  3 student student 4096 Nov 18 11:59 DataScienceLab
drwxr-xr-x  5 student student 4096 Feb 25 11:35 Desktop
drwxr-xr-x  3 student student 4096 Oct  5 09:55 Documents
drwxr-xr-x  5 student student 4096 Feb 21 10:48 Downloads
-rw-r--r--  1 student student 8980 Oct  4 16:16 examples.desktop
drwxr-xr-x  2 student student 4096 Oct  5 09:50 Music
drwxr-xr-x  2 student student 4096 Dec 20 10:22 Pictures
drwxr-xr-x  2 student student 4096 Oct  5 09:50 Public
drwxrwxr-x 16 student student 4096 Jan  3 12:34 PycharmProjects
-rw-rw-r--  1 student student    6 Nov  1 12:03 sample.py
drwx------  3 student student 4096 Nov  1 11:44 snap
-rw-rw-r--  1 student student   15 Nov  1 11:41 sum.py
drwxr-xr-x  2 student student 4096 Oct  5 09:50 Templates
-rwxrwxr-x  1 student student 8768 Nov 22 08:57 test
-rw-rw-r--  1 student student   78 Nov 22 08:57 test.cpp
-rw-rw-r--  1 student student 2568 Nov 22 08:57 test.o
drwxr-xr-x  2 student student 4096 Oct  5 09:50 Videos
```

Ls –r: list all files and directories with their corresponding subdirectories

Syntax: ls –r

```
student@S4:~$ ls -R
.:
1.py    DataScienceLab  Documents  examples.desktop  Pictures  PycharmProjects  snap    Templates
athira  Desktop         Downloads  Music             Public    sample.py        sum.py  test

./athira:
aa  ath  a.txt  b.txt  create

./athira/aa:

./athira/ath:

./athira/create:

./DataScienceLab:
'04-Julia George'
```

Ls –a: list all files including hidden files starting with ..

```
student@S4:~$ ls -a
.               Desktop          Music            sum.py
..              Documents        .oracle_jre_usage  Templates
1.py            Downloads        Pictures         test
athira          examples.desktop .pki             test.cpp
.bash_history   .gnupg           .profile         test.o
.bash_logout    .ICEauthority    Public           .thunderbird
.bashrc         .idlerc          PycharmProjects  Videos
.cache          .java            sample.py
.config         .local           snap
DataScienceLab  .mozilla         .ssh
```

Ls –al: permission to the file or directory

Ls -al

```
student@S4:~$ ls -al
total 172
drwxr-xr-x 25 student student 4096 Mar 24 14:28 .
drwxr-xr-x  6 root    root    4096 Jan 13 14:05 ..
-rw-rw-r--  1 student student   16 Nov  1 11:38 1.py
drwxr-xr-x  2 student student 4096 Mar 24 14:28 athira
-rw-------  1 student student  116 Nov 19 08:57 .bash_history
-rw-r--r--  1 student student  220 Oct  4 16:16 .bash_logout
-rw-r--r--  1 student student 3771 Oct  4 16:16 .bashrc
drwx------ 18 student student 4096 Dec 20 10:03 .cache
drwx------ 20 student student 4096 Dec 13 12:52 .config
drwxr-xr-x  3 student student 4096 Nov 18 11:59 DataScienceLab
drwxr-xr-x  5 student student 4096 Feb 25 11:35 Desktop
drwxr-xr-x  3 student student 4096 Oct  5 09:55 Documents
drwxr-xr-x  5 student student 4096 Feb 21 10:48 Downloads
-rw-r--r--  1 student student 8980 Oct  4 16:16 examples.desktop
drwx------  3 student student 4096 Nov  1 11:21 .gnupg
-rw-------  1 student student 9664 Mar 24 14:01 .ICEauthority
drwxrwxr-x  2 student student 4096 Nov  1 11:41 .idlerc
drwxrwxr-x  4 student student 4096 Nov  1 11:44 .java
drwx------  5 student student 4096 Nov 18 09:41 .local
drwx------  5 student student 4096 Oct  5 11:38 .mozilla
drwxr-xr-x  2 student student 4096 Oct  5 09:50 Music
drwxrwxr-x  2 student student 4096 Nov 18 12:35 .oracle_jre_usage
drwxr-xr-x  2 student student 4096 Dec 20 10:22 Pictures
drwx------  3 student student 4096 Oct 29 15:19 .pki
-rw-r--r--  1 student student  807 Oct  4 16:16 .profile
drwxr-xr-x  2 student student 4096 Oct  5 09:50 Public
drwxrwxr-x 16 student student 4096 Jan  3 12:34 PycharmProjects
-rw-rw-r--  1 student student    6 Nov  1 12:03 sample.py
drwx------  3 student student 4096 Nov  1 11:44 snap
drwx------  2 student student 4096 Nov  1 11:21 .ssh
```

Ls –t: command to list files or directory are sorted b last modified date in ascending order.

```
drwxr-xr-x  2 student student 4096 Oct  5 09:50 Videos
student@S4:~$ ls -t
athira    Downloads        Pictures  test.o    DataScienceLab  snap    1.py       Music
Desktop   PycharmProjects  test      test.cpp  sample.py       sum.py  Documents  Public
student@S4:~$ cd athira
```

4. **Cd**

   It is used to change the current working directory.
   Syntax: cd dirrctory

   ```
   student@S4:~$ cd athira
   ```

   Options:
   cd..:it is used to move to the parent directory of current directory.

   cd-:

   ```
   student@S4:~$ cd -
   ```

5. Cat

   It can be used to display the content of a file ,copy content from one file to another, Concantenate content of multiple files ,display lines.

Options:

Cat > filename: To create a file.

```
student@S4:~$ cat >  c.txt
familiarization of cat command

cat having different options
adding content
new file
append content
updating
adding


deleting
^Z
[1]+  Stopped                    cat > c.txt
student@S4:~$ cat > d.txt
familiarization of diferent options
cat having differnt options
adding content


updating
deleteing
inserting


appending
^Z
[2]+  Stopped                    cat > d.txt
```

Cat filename: Display the content of the file.

```
student@S4:~/athira$ cat a.txt
athira
```

Cat oldfilename >newfilename: copy content from old file to new file.

```
student@S4:~/athira$ cat a.txt > b.txt
student@S4:~/athira$ cat b.txt
athira
```

Cat -n : view content of a file preceeding from the file number.

Cat -n filename

Output:

```
student@S4:~$ cat ·n c.txt
     1  familiarization of cat command
     2
     3  cat having different options
     4  adding content
     5  new file
     6  append content
     7  updating
     8  adding
     9
    10
    11  deleting
```

Cat –b: remove empty lines.

Cat –b filename

```
student@S4:~$ cat -b c.txt
     1  familiarization of cat command

     2  cat having different options
     3  adding content
     4  new file
     5  append content
     6  updating
     7  adding


     8  deleting
```