

# OPERATING SYSTEM

## ASSIGNMENT :- 2

1. List the directory contents date wise sorted.

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo$ ls -lt
total 28
-rw-rw-r-- 1 sunbeam sunbeam 41 Dec 26 16:21 number.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 17:15 os_concept.txt
-rw-rw-r-- 1 sunbeam sunbeam 34 Dec 25 15:44 copy.text
-rw-rw-r-- 1 sunbeam sunbeam 34 Dec 25 15:39 lokesh.text
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 15:36 F1.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 15:36 F2.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 15:36 F3.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 15:35 File.txt
drwxrwxr-x 3 sunbeam sunbeam 4096 Dec 25 15:29 OS
drwxrwxr-x 2 sunbeam sunbeam 4096 Dec 25 15:28 DBT
drwxrwxr-x 2 sunbeam sunbeam 4096 Dec 25 15:28 DSA
drwxrwxr-x 2 sunbeam sunbeam 4096 Dec 25 15:28 JAVA
```

2. List the directory contents size wise sorted.

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo$ ls -ls
total 28
drwxrwxr-x 2 sunbeam sunbeam 4096 Dec 25 15:28 DBT
drwxrwxr-x 2 sunbeam sunbeam 4096 Dec 25 15:28 DSA
drwxrwxr-x 2 sunbeam sunbeam 4096 Dec 25 15:28 JAVA
drwxrwxr-x 3 sunbeam sunbeam 4096 Dec 25 15:29 OS
-rw-rw-r-- 1 sunbeam sunbeam 41 Dec 26 16:21 number.txt
-rw-rw-r-- 1 sunbeam sunbeam 34 Dec 25 15:44 copy.text
-rw-rw-r-- 1 sunbeam sunbeam 34 Dec 25 15:39 lokesh.text
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 15:36 F1.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 15:36 F2.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 15:36 F3.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 15:35 File.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 25 17:15 os_concept.txt
```

3. List directory contents along with their inode no.

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo$ ls -li
7078269 copy.text 7078257 DSA 7078266 F2.txt 7078264 File.txt 7078268 lokesh.text 7078256 OS
7078258 DBT 7078265 F1.txt 7078267 F3.txt 7078259 JAVA 7078271 number.txt 7078272 os_concept.txt
```

**4. List the contents of the subdirectory.**

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo$ ls -R
.:
copy.txt  F2.txt    lokesh.txt    os_concept.txt
DBT       F3.txt    number.txt
DSA       File.txt  OS
F1.txt    JAVA     os_concept2.txt

./DBT:

./DSA:

./JAVA:

./OS:
dir1

./OS/dir1:
dir2

./OS/dir1/dir2:
dir3

./OS/dir1/dir2/dir3:
dir4

./OS/dir1/dir2/dir3/dir4:
```

**5. Create a file, write your surname and name in it and save.**

**i. now open the same file and add your address in it and save.**

**ii. reopen the same file and check your name and address in it.**

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo$ cat > lokesh_patel.txt
Lokesh Patel
Nagpur, Maharastra
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo$ cat lokesh_patel.txt
Lokesh Patel
Nagpur, Maharastra
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo$
```

## 6. how to change the time stamp of file.

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ touch -t 202312281206 Lokesh
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ ls -lht
total 100M
drwxrwxr-x 7 sunbeam sunbeam 4.0K Dec 28 16:21 os_demo
drwxrwxr-x 2 sunbeam sunbeam 4.0K Dec 28 15:52 Shell
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 28 15:46 install.sh
-rw-rw-r-- 1 sunbeam sunbeam  34 Dec 28 12:06 Lokesh
-rw-rw-r-- 1 sunbeam sunbeam  85 Dec 25 16:53 copy.txt
-rw-rw-r-- 1 sunbeam sunbeam 100M Nov 14 03:07 google-chrome-stable_current_amd64.deb
drwxrwxr-x 4 sunbeam sunbeam 4.0K Nov  8 16:18 new
drwxr-xr-x 4 sunbeam sunbeam 4.0K Nov  8 16:18 node_modules
-rw-r--r-- 1 root root  49 Oct 26 15:28 package.json
-rw-r--r-- 1 root root 131K Oct 26 15:28 package-lock.json
```

## 7. Create directory structure : Give following commands ,

```
-> mkdir one
-> cd one
-> touch 1.txt 11.txt 111.txt
-> mkdir two
-> cd two
-> touch 2.txt 22.txt 222.txt
-> mkdir three
-> cd three
-> touch 3.txt 33.txt 333.txt
-> mkdir four
-> cd four
-> touch 4.txt 44.txt 444.txt
-> mkdir five
-> cd five
-> touch 5.txt 55.txt 555.txt
-> cd ~ (i.e. go to your home directory)
```

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two$ cd three
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three$ touch 3.txt 33.txt 333.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three$ mkdir four
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three/four$ touch 4.txt 44.txt 444.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three/four$ mkdir five
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three/four/five$ touch 5.txt 55.txt 555.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three/four/five$ cd ~
sunbeam@sunbeam-Nitro-AN515-42:~$
```

**8. Considering above directory structure , Do following operations :**

**i. list the directory contents of directory named "five" from current directory (i.e. home directory).**

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ ls os_demo/one/two/three/four/five
555.txt  55.txt  5.txt
```

**ii. write your name in a file named "44.txt" of directory "four" from current directory.**

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ echo "Lokesh" >> os_demo/one/two/three/four/44.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ cat os_demo/one/two/three/four/44.txt
Lokesh
```

**iii. remove the file named "555.txt" from directory "five" from current directory.**

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ rm os_demo/one/two/three/four/five/555.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three/four/five$ ls
55.txt  5.txt
```

**iv. change directory to five ( i.e. cd one/two/three/four/five/ ).**

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ cd os_demo/one/two/three/four/five
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three/four/five$ pwd
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three/four/five$
```

**v. write your course name in file named "3.txt" which resides in directory "three" from current directory (i.e. five).also read the same file.**

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ echo "DMC COURSE" >> os_demo/one/two/three/3.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ cat os_demo/one/two/three/3.txt
DMC COURSE
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$
```

vi. list the contents of directory "two" from current directory (i.e. five).

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ ls os_demo/one/two
222.txt  22.txt  2.txt  three
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$
```

vii. remove file named "222.txt" which belongs to directory "two" from current directory (i.e. five)

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ rm os_demo/one/two/222.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ ls os_demo/one/two
22.txt  2.txt  three
```

viii. now change the directory to "one"

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop$ cd os_demo/one
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$
```

ix. remove all files only from directory named "five" from current directory (i.e. one)

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$ rm two/three
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$ ls
111.txt  11.txt  1.txt  two
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$ ls two/three/four/five
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$
```

x. remove directory named "five" from current directory (i.e. one)

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$ rmdir two/three/four/five
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$ ls two/three/four/five
ls: cannot access 'two/three/four/five': No such file or directory
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$
```

xi. remove whole directory named "four" from current directory (i.e. one)

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$ rm -R two/three/four
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$ ls two/three/four
ls: cannot access 'two/three/four': No such file or directory
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$
```

xii. change to your home directory.

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one$ cd ~
sunbeam@sunbeam-Nitro-AN515-42:~$
```

9. change the time stamp of file named "3.txt" which resides in directory named "three".

```
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three$ ls -lht
total 4.0K
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 28 16:26 333.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 28 16:26 33.txt
-rw-rw-r-- 1 sunbeam sunbeam 11 Dec 28 12:06 3.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three$ touch -t 202312280906 3.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three$ ls -lht
total 4.0K
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 28 16:26 333.txt
-rw-rw-r-- 1 sunbeam sunbeam  0 Dec 28 16:26 33.txt
-rw-rw-r-- 1 sunbeam sunbeam 11 Dec 28 09:06 3.txt
sunbeam@sunbeam-Nitro-AN515-42:~/Desktop/os_demo/one/two/three$
```

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