

Laboratory Assignment 1
On
Design Principles of Operating System
(CSE 3249)

Submitted by

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
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Assignment 1: Basic Commands in Unix Operating System.

Objective of this Assignment: • To study the basic commands such as who, who am i, date, cal, pwd, man, mkdir, cd, rmdir, cat, mv, cp, rm, wc, sort, head, tail, cmp, diff, ls, chmod, grep, echo for accessing files and directories.

Observation:

1:

```
ejdotp@Belzeebub: ~/DOS_2241016309/DOSass1/dir
ejdotp@Belzeebub:~$ mkdir DOS_2241016309
ejdotp@Belzeebub:~$ mkdir DOS_2241016309/DOSass1
ejdotp@Belzeebub:~$ mkdir DOS_2241016309/DOSass1/dir
ejdotp@Belzeebub:~$ cd DOS_2241016309/DOSass1/dir
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir$
```

2:

```
ejdotp@Belzeebub: ~/DOS_2241016309/DOSass1/dir2
ejdotp@Belzeebub:~$ mkdir DOS_2241016309/DOSass1/dir2
ejdotp@Belzeebub:~$ cd DOS_2241016309/DOSass1/dir2
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir2$
```

3:

```
ejdotp@Belzeebub: ~/DOS_2241016309
ejdotp@Belzeebub:~$ cd DOS_2241016309
ejdotp@Belzeebub:~/DOS_2241016309$ ls
DOSass1
ejdotp@Belzeebub:~/DOS_2241016309$ ls DOSass1
dir1 dir2
ejdotp@Belzeebub:~/DOS_2241016309$ rmdir DOSass1/dir2
ejdotp@Belzeebub:~/DOS_2241016309$ ls DOSass1
dir1
ejdotp@Belzeebub:~/DOS_2241016309$
```

4:

```
ejdotp@Belzeebub: ~/DOS_2241016309/DOSass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309$ cd DOSass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ cat > file1
Name: E. Jagadeeswar Patro
Regd: 2241016309
branch: CSE
sem: 5th
sec: 44
^C
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ cat file1
Name: E. Jagadeeswar Patro
Regd: 2241016309
branch: CSE
sem: 5th
sec: 44
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$
```

5:

```
ejdotp@Belzeebub: ~/DOS_2241016309/D0Sass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ cat > file2
SEM1: 8.63
SEM2: 8.63
SEM3: 9.27
SEM4: 9.08
^C
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ cat file2
SEM1: 8.63
SEM2: 8.63
SEM3: 9.27
SEM4: 9.08
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$
```

6:

```
ejdotp@Belzeebub: ~/DOS_2241016309/D0Sass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ cat file1 file2 > file3
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ cat file3
Name: E. Jagadeeswar Patro
Regd: 2241016309
branch: CSE
sem: 5th
sec: 44
SEM1: 8.63
SEM2: 8.63
SEM3: 9.27
SEM4: 9.08
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$
```

7:

```
ejdotp@Belzeebub: ~/DOS_2241016309/D0Sass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ mv file2 markinfo
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ ls
file1 file3 markinfo
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ cat markinfo
SEM1: 8.63
SEM2: 8.63
SEM3: 9.27
SEM4: 9.08
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$
```

8:

```
ejdotp@Belzeebub: ~/DOS_2241016309/D0Sass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ cp file1 reginfo
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ ls
file1 file3 markinfo reginfo
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ cat reginfo
Name: E. Jagadeeswar Patro
Regd: 2241016309
branch: CSE
sem: 5th
sec: 44
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$
```

9:

```
ejdotp@Belzeebub: ~/DOS_2241016309/D0Sass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$ ls -l
3016926 file1 3016930 file3 3016928 markinfo 3016933 reginfo
ejdotp@Belzeebub:~/DOS_2241016309/D0Sass1/dir1$
```

10:

```
ejdotp@Belzeebub: ~/DOS_2241016309/DOSass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ rm file1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ ls
file3  markinfo  reginfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$
```

11:

```
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ wc markinfo
 4  8 44 markinfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ wc -l markinfo
4 markinfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ wc -w markinfo
8 markinfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ wc -m markinfo
44 markinfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$
```

12:

```
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ cat > Personalinfo
Name: E. Jagadeeswar Patro
Regd: 2241016309
Adrs: MIG-101, H. B. Colony, Khandagiri, BBSR
^C
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ cat Personalinfo
Name: E. Jagadeeswar Patro
Regd: 2241016309
Adrs: MIG-101, H. B. Colony, Khandagiri, BBSR
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$
```

13:

```
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ sort -r markinfo
SEM4: 9.08
SEM3: 9.27
SEM2: 8.63
SEM1: 8.63
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$
```

14:

```
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ cmp reginfo Personalinfo
reginfo Personalinfo differ: byte 45, line 3
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ diff reginfo Personalinfo
3,5c3
< branch: CSE
< sem: 5th
< sec: 44
---
> Adrs: MIG-101, H. B. Colony, Khandagiri, BBSR
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$
```

15:

```
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ ls | wc -l
4
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$
```

16:

```
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ ls -d * > filelist
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ cat filelist
file3
markinfo
Personalinfo
reginfo
```

17:

```

ejdotp@Belzeebub: ~/DOS_2241016309/DOSass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ chmod a+w reginfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$

```

18:

```

ejdotp@Belzeebub: ~/DOS_2241016309/DOSass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ chmod g-w reginfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$

```

19:

```

ejdotp@Belzeebub: ~/DOS_2241016309/DOSass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ chmod a+rwX reginfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$

```

20:

```

ejdotp@Belzeebub: ~/DOS_2241016309/DOSass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ date; pwd
Sat Sep 14 01:58:10 PM IST 2024
/home/ejdotp/DOS_2241016309/DOSass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ date; pwd | wc -l
Sat Sep 14 01:58:26 PM IST 2024
1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ (date; pwd) | wc -l
2
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$

```

21:

```

ejdotp@Belzeebub: ~/DOS_2241016309/DOSass1/dir1
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo *
file3 filelist markinfo Personalinfo reginfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo ***
file3 filelist markinfo Personalinfo reginfo
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo '***'
***
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo \***
***
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo \*\*\*
***
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo */*
*/
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo Don't do this
> ^C
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo "Don't do this"
Don't do this
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo Hello # world
Hello
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo "Hello # world"
Hello # world
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo 'Hello # world'
Hello # world
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo date
date
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo 'date'
date
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo "date"
date
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$ echo `date`
Sat Sep 14 02:02:41 PM IST 2024
ejdotp@Belzeebub:~/DOS_2241016309/DOSass1/dir1$

```