

## ASSIGNMENT 03 CONCEPTS OF OPERATING SYSTEMS

HARSH DIXIT

KD1-86691-HARSH

Q1

```
osboxes@osboxes:~/dir1$ cat > .hiddenfile.txt
This is my hidden file...
osboxes@osboxes:~/dir1$ ls -a
.  ..  file10.htm  file1.htm  .hiddenfile.txt
```

Q2

```
osboxes@osboxes:~/dir1$ ls
file10.txt  file1.txt
osboxes@osboxes:~/dir1$ rename "s/.txt/.htm/" *.txt
osboxes@osboxes:~/dir1$ ls
file10.htm  file1.htm
```

Q3

```
osboxes@osboxes:~/dir1$ ls
file10.htm  file1.htm  textfile.txt
osboxes@osboxes:~/dir1$ cd ..
osboxes@osboxes:~$ ln -s dir1/textfile.txt
osboxes@osboxes:~$ ls
dl      dir      dir1      Downloads  file.txt  Pictures  scripts  taste.txt  textfile.txt
data.txt dir02  dir2      file1.txt  move      Public    select.txt Templates  Videos
Desktop dir03  Documents file2.txt  Music     readonlyfile.txt snap      test.txt  vim.txt
osboxes@osboxes:~$ cat textfile.txt
line 1
line 2
line 3
line 4
line 5
line 6
line 7
line 8
line 9
line 10
```

Q4

```
osboxes@osboxes:~$ ln dir1/textfile.txt
osboxes@osboxes:~$ ls
dl      dir      dir1      Downloads  file.txt  Pictures  scripts  taste.txt  textfile.txt
data.txt dir02  dir2      file1.txt  move      Public    select.txt Templates  Videos
Desktop dir03  Documents file2.txt  Music     readonlyfile.txt snap      test.txt  vim.txt
```

Q5

```
osboxes@osboxes:~/dir1$ ls -l textfile.txt
-rwxrwxrwx 2 osboxes osboxes 71 Oct 10 13:47 textfile.txt
osboxes@osboxes:~/dir1$ touch -t 202410111511 textfile.txt
osboxes@osboxes:~/dir1$ ls -l textfile.txt
-rwxrwxrwx 2 osboxes osboxes 71 Oct 11 2024 textfile.txt
osboxes@osboxes:~/dir1$ ls -l
total 4
-rw-rw-r-- 1 osboxes osboxes 0 Oct 8 10:03 file10.htm
-rw-rw-r-- 1 osboxes osboxes 0 Oct 8 10:03 file1.htm
-rwxrwxrwx 2 osboxes osboxes 71 Oct 11 2024 textfile.txt
```

### Q 6,7

```
osboxes@osboxes:~/dir1$ touch textfile.txt
osboxes@osboxes:~/dir1$ stat textfile.txt
  File: textfile.txt
  Size: 19          Blocks: 8          IO Block: 4096   regular file
Device: 8,2      Inode: 8127364      Links: 1
Access: (0664/-rw-rw-r--)  Uid: ( 1000/ osboxes)   Gid: ( 1000/ osboxes)
Access: 2024-10-10 13:44:46.941154107 -0400
Modify: 2024-10-10 13:44:46.941154107 -0400
Change: 2024-10-10 13:44:46.941154107 -0400
 Birth: 2024-10-10 13:43:44.207174031 -0400
```

### Q8

```
osboxes@osboxes:~/dir1$ cat textfile.txt
line 1
line 2
line 3
line 4
line 5
line 6
line 7
line 8
line 9
line 10
osboxes@osboxes:~/dir1$ tail -6 textfile.txt
line 5
line 6
line 7
line 8
line 9
line 10
```

### Q12 13 14 15 16

```
osboxes@osboxes:~$ whoami
osboxes
osboxes@osboxes:~$ tty
/dev/pts/1
osboxes@osboxes:~$ who am i
osboxes@osboxes:~$ users
osboxes osboxes
osboxes@osboxes:~$ who
osboxes  seat0          2024-10-10 13:16 (login screen)
osboxes  tty2           2024-10-10 13:16 (tty2)
```

## Q17

### grep

```
osboxes@osboxes:~$ touch data.txt
osboxes@osboxes:~$ cat > data.txt
Linux is open source.
In Linux everthing is file
files have permissions.
files have inode no.
files have size.
there are several types of files
osboxes@osboxes:~$ wc data.txt
  6 25 144 data.txt
osboxes@osboxes:~$ grep "files" data.txt
files have permissions.
files have inode no.
files have size.
there are several types of files
osboxes@osboxes:~$ grep -n "files" data.txt
3:files have permissions.
4:files have inode no.
5:files have size.
6:there are several types of files
osboxes@osboxes:~$ grep -v "files" data.txt
Linux is open source.
In Linux everthing is file
osboxes@osboxes:~$ grep "have" data.txt
files have permissions.
files have inode no.
files have size.
```

### egrep

```
osboxes@osboxes:~$ cat taste.txt
This
biscuit
isn't goof
but that
cake is
really tasty.
osboxes@osboxes:~$ cat > repeat.txt
dac
daac
daaac
daaaac
daaaaaac
osboxes@osboxes:~$ egrep "d[aa]c" repeat.txt
dac
osboxes@osboxes:~$ egrep "d(aa)c" repeat.txt
daac
```

### fgrep

```
osboxes@osboxes:~$ cat ex.txt
hello i am learning shell script
osboxes@osboxes:~$ fgrep -c "shell" ex.txt
1
```

### Q18

```
osboxes@osboxes:~$ cat > test.txt
This is test file.
osboxes@osboxes:~$ ls -l t
taste.txt  test.txt
osboxes@osboxes:~$ ls -l test.txt
-rw-rw-r-- 1 osboxes osboxes 19 Oct 10 14:15 test.txt
```

```
osboxes@osboxes:~$ chmod -w t
taste.txt  test.txt
osboxes@osboxes:~$ chmod -w test.txt
osboxes@osboxes:~$ ls -l test.txt
-r--r--r-- 1 osboxes osboxes 19 Oct 10 14:15 test.txt
```

### Q19

```
osboxes@osboxes:~$ touch file.txt
osboxes@osboxes:~$ ls -l file.txt
-rw-rw-r-- 1 osboxes osboxes 0 Oct 10 14:21 file.txt
osboxes@osboxes:~$ chmod +x file.txt
osboxes@osboxes:~$ ls -l file.txt
-rwxrwxr-x 1 osboxes osboxes 0 Oct 10 14:21 file.txt
```

Or

```
osboxes@osboxes:~/dir1$ ls -l textfile.txt
-rw-rw-r-- 2 osboxes osboxes 71 Oct 10 13:47 textfile.txt
osboxes@osboxes:~/dir1$ chmod 777 textfile.txt
osboxes@osboxes:~/dir1$ ls -l textfile.txt
-rwxrwxrwx 2 osboxes osboxes 71 Oct 10 13:47 textfile.txt
```

### Q20

```
osboxes@osboxes:~/dir1$ cat > text1.txt
Hello world
osboxes@osboxes:~/dir1$ wc text1.txt
 1  2 12 text1.txt
osboxes@osboxes:~/dir1$ wc text1.txt
 1  2 12 text1.txt
osboxes@osboxes:~/dir1$ wc < text1.txt > text2.txt
osboxes@osboxes:~/dir1$ cat text2.txt
 1  2 12
```

### Q21

```
osboxes@osboxes:~/dir1$ who
osboxes  seat0      2024-10-11 05:21 (login screen)
osboxes  tty2       2024-10-11 05:21 (tty2)
osboxes@osboxes:~/dir1$ who | wc
      2      11     100
```

### Q22

```
osboxes@osboxes:~/dir1$ cat textfile.txt
line 1
line 2
line 3
line 4
line 5
line 6
line 7
line 8
line 9
line 10
osboxes@osboxes:~/dir1$ head -10 textfile.txt | tail -6
line 5
line 6
line 7
line 8
line 9
line 10
```

### Q23

```
osboxes@osboxes:~/dir1$ cat temp.txt
32
23
45
33
11
22
24
osboxes@osboxes:~/dir1$ sort temp.txt | uniq
11
22
23
24
32
33
45
```

### Q24

```
osboxes@osboxes:~/dir1$ who | grep -v '^d' | sort -k 5n
osboxes  seat0      2024-10-11 05:21 (login screen)
osboxes  tty2        2024-10-11 05:21 (tty2)
```

### Q25

```
osboxes@osboxes:~/dir1$ ls -ls | grep -v '^d' | sort -k 5n
0 -rw-rw-r-- 1 osboxes osboxes 0 Oct 8 10:03 file10.htm
0 -rw-rw-r-- 1 osboxes osboxes 0 Oct 8 10:03 file1.htm
4 -rw-rw-r-- 1 osboxes osboxes 12 Oct 11 05:58 text1.txt
4 -rw-rw-r-- 1 osboxes osboxes 21 Oct 11 06:06 temp.txt
4 -rw-rw-r-- 1 osboxes osboxes 9 Oct 11 06:00 text2.txt
4 -rwxrwxrwx 2 osboxes osboxes 71 Oct 11 2024 textfile.txt
total 16
```

## Q26

```
osboxes@osboxes:~/dir1$ ls
file10.htm file1.htm temp.txt text1.txt text2.txt textfile.txt
osboxes@osboxes:~/dir1$ echo "Files: $(ls -l | grep '^-' | wc -l) Directories: $(ls -l | grep '^d' | wc -l)"
Files: 6 Directories: 0
```

## Q27

```
osboxes@osboxes:~/dir1$ cat > .hiddenfile.txt
This is hidden file present in dir1 directory.
osboxes@osboxes:~/dir1$ ls -a
. .. file10.htm file1.htm .hiddenfile.txt temp.txt text1.txt text2.txt textfile.txt
osboxes@osboxes:~/dir1$ ls .* | grep -v '^d'
.hiddenfile.txt
```

## Q28

```
osboxes@osboxes:~/dir1$ cat > t1.txt
lowercase harsh dicit
osboxes@osboxes:~/dir1$ tr '[:lower:]' '[:upper:]' <t1.txt> output.txt
osboxes@osboxes:~/dir1$ cat output.txt
LOWERCASE HARSH DIXIT
```

## Q29

```
osboxes@osboxes:~$ echo "Lionel Messi Lamine Yamal David Beckham" | cut -d " " -f1
Lionel
osboxes@osboxes:~$ echo "Lionel Messi Lamine Yamal David Beckham" | cut -d " " -f2,3
Messi Lamine
osboxes@osboxes:~$ echo "Lionel Messi Lamine Yamal David Beckham" | cut -d " " -f2-5
Messi Lamine Yamal David
```

-----HARSH DIXIT-----