



CT5052 Network Operating Systems (2nd year)

Submitted to: Mr. Prashant Adhikari

Individual coursework

Log-8

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I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline for the assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded.

Question.1 & 2

Here, creating home directory and we are changing the path,

```
(kali㉿kali)-[~]
$ mkdir -p w8/8cat-grep

(kali㉿kali)-[~]
$ cd w8/8cat-grep

(kali㉿kali)-[~/w8/8cat-grep]
```

Question.3

Using the **cat** utility, create two files

File testa	File testb
Kkkll	KKKKK
lllmm	LLLLL
oo—oo	MMMMM
mmmdd	DDDDD
dddkk	

```
(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ cat>testa
Kkkll
lllmm
mmmdd
dddkk

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ cat>testb
KKKKK
LLLLL
MMMMM
DDDDD

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$
```

Question.4

Using the following commands

- **grep ll testa**
- **grep -v ll testa**
- **grep -n ll testa**
- **grep -l ll ***
- **grep -i ll ***
- **grep -i LL ***
- **grep -c ll ***
- **grep '^K' testa testb**
- **grep -n '^' testa**

```
(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep ll testa
Kkkll
llmm
System

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep -v ll testa
mmdd
dddkk

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep -n ll testa
1:Kkkll
2:llmm

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep -l ll*
grep -l ll *
(standard input)

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep -l ll *
testa

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep -i ll *
testa:Kkkll
testa:llmm
testb:LLLLL

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep -i LL *
testa:Kkkll
testa:llmm
testb:LLLLL

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep -c ll *
testa:2
testb:0
```

```

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep '^K' testa testb
testa:Kkkll
testb:KKKKK

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ grep -n '^' testa
1:Kkkll
2:lllmm
3:mmmdd
4:dddkk

```

Question.5

The lsal alias is a shorthand for the ls -al command, which lists all files and directories, including hidden ones, in a detailed long format. Here we are using it in home directory also

```

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ alias lsal="ls -al"

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ lsal
total 16
drwxr-xr-x 2 kali kali 4096 Dec 26 02:28 .
drwxr-xr-x 3 kali kali 4096 Dec 26 02:19 ..
-rw-r--r-- 1 kali kali 24 Dec 26 02:28 testa
-rw-r--r-- 1 kali kali 24 Dec 26 02:29 testb

(kali㉿kali)-[~/Desktop/W8/8cat-grep]
$ cd

(kali㉿kali)-[~]
$ lsal
total 132
drwx----- 15 kali kali 4096 Dec 26 02:16 .
drwxr-xr-x 3 root root 4096 Feb 25 2024 ..
-rw-r--r-- 1 kali kali 220 Feb 25 2024 .bash_logout
-rw-r--r-- 1 kali kali 5551 Feb 25 2024 .bashrc
-rw-r--r-- 1 kali kali 3526 Feb 25 2024 .bashrc.original
drwxr-xr-x 8 kali kali 4096 Dec 20 04:42 .cache
drwxr-xr-x 13 kali kali 4096 Dec 13 02:20 .config
drwxr-xr-x 4 kali kali 4096 Dec 26 02:19 Desktop
-rw-r--r-- 1 kali kali 35 Dec 13 02:11 .dmrc
drwxr-xr-x 2 kali kali 4096 Dec 13 02:11 Documents
drwxr-xr-x 2 kali kali 4096 Dec 13 02:11 Downloads
-rw-r--r-- 1 kali kali 11759 Feb 25 2024 .face
lrwxrwxrwx 1 kali kali 5 Feb 25 2024 .face.icon → .face
drwx----- 3 kali kali 4096 Dec 13 02:11 .gnupg
-rw----- 1 kali kali 0 Dec 13 02:11 .ICEauthority
drwxr-xr-x 3 kali kali 4096 Feb 25 2024 .java
drwxr-xr-x 4 kali kali 4096 Dec 13 02:11 .local
drwxr-xr-x 2 kali kali 4096 Dec 13 02:11 Music
drwxr-xr-x 2 kali kali 4096 Dec 13 02:11 Pictures
-rw-r--r-- 1 kali kali 807 Feb 25 2024 .profile
drwxr-xr-x 2 kali kali 4096 Dec 13 02:11 Public
drwxr-xr-x 2 kali kali 4096 Dec 13 02:11 Templates
drwxr-xr-x 2 kali kali 4096 Dec 13 02:11 Videos
-rw----- 1 kali kali 49 Dec 26 02:16 .Xauthority
-rw----- 1 kali kali 4131 Dec 26 02:16 .xsession-errors
-rw----- 1 kali kali 5063 Dec 20 23:21 .xsession-errors.old
-rw----- 1 kali kali 1589 Dec 20 23:21 .zsh_history
-rw-r--r-- 1 kali kali 10868 Feb 25 2024 .zshrc

```

Question.6

Removing alias and showing that the system does not store it.

```
(kali㉿kali)-[~]
$ unalias lsal

(kali㉿kali)-[~]
$ lsal
Command 'lsal' not found, did you mean:
  command 'lsar' from debunar
Try: sudo apt install <deb name>
```

Question.7

Preserving it for the next session

```
kali@kali: ~
File Actions Edit View Help
(kali㉿kali)-[~/Desktop]
$ cd ..

(kali㉿kali)-[~]
$ lsal
total 132
drwx----- 15 kali kali 4096 Dec 26 02:56 .
drwxr-xr-x  3 root root 4096 Feb 25 2024 ..
-rw-r--r--  1 kali kali 220 Feb 25 2024 .bash_logout
-rw-r--r--  1 kali kali 5551 Feb 25 2024 .bashrc
-rw-r--r--  1 kali kali 3526 Feb 25 2024 .bashrc.original
drwxr-xr-x  8 kali kali 4096 Dec 20 04:42 .cache
drwxr-xr-x 13 kali kali 4096 Dec 13 02:20 .config
drwxr-xr-x  4 kali kali 4096 Dec 26 02:19 Desktop
-rw-r--r--  1 kali kali 35 Dec 13 02:11 .dmrc
drwxr-xr-x  2 kali kali 4096 Dec 13 02:11 Documents
drwxr-xr-x  2 kali kali 4096 Dec 13 02:11 Downloads
-rw-r--r--  1 kali kali 11759 Feb 25 2024 .face
lrwxrwxrwx  1 kali kali 5 Feb 25 2024 .face.icon -> .face
drwx----- 3 kali kali 4096 Dec 13 02:11 .gnupg
-rw----- 1 kali kali 0 Dec 13 02:11 .ICEauthority
drwxr-xr-x  3 kali kali 4096 Feb 25 2024 .java
drwxr-xr-x  4 kali kali 4096 Dec 13 02:11 .local
drwxr-xr-x  2 kali kali 4096 Dec 13 02:11 Music
drwxr-xr-x  2 kali kali 4096 Dec 13 02:11 Pictures
-rw-r--r--  1 kali kali 807 Feb 25 2024 .profile
drwxr-xr-x  2 kali kali 4096 Dec 13 02:11 Public
drwxr-xr-x  2 kali kali 4096 Dec 13 02:11 Templates
drwxr-xr-x  2 kali kali 4096 Dec 13 02:11 Videos
-rw----- 1 kali kali 49 Dec 26 02:16 .Xauthority
-rw----- 1 kali kali 4443 Dec 26 02:56 .xsession-errors
-rw----- 1 kali kali 5063 Dec 20 23:21 .xsession-errors.old
-rw----- 1 kali kali 1589 Dec 20 23:21 .zsh_history
-rw-r--r--  1 kali kali 10888 Dec 26 02:54 .zshrc

(kali㉿kali)-[~]
$
```

Question.8

Defining the **nwho** alias for the number of system file at UNIX computers.

alias nwho='getent passwd|wc -l'

```
(kali㉿kali)-[~]
$ alias nwho="getent passwd | wc -l"

(kali㉿kali)-[~]
$ nwho
57
```

Question.9

Giving the command **nwho**. Comparing the figure displayed with ones got by our UNIX-mates.

```
(kali㉿kali)-[~]
$ uname -a
Linux kali 6.6.9-amd64 #1 SMP PREEMPT_DYNAMIC Kali 6.6.9-1kali1 (2024-01-08) x86_64 GNU/Linux
```

Question.10

Giving history command,

```
(kali㉿kali)-[~]
$ history
1 echo "This is a one-line file" > Test1
2 cat > test2
3 cat Test1 test2 > outputfiles
4 exit the script
5 mkdir -p W7/{W7-1/{1level3,2level3}/W7-2/{3level3,4level3}}
6 tree W7
7 cd W7/W7-1/1level3/
8 exit
9 mkdir -p W7/{W7-1/{1level3,2level3}/W7-2/{3level3,4level3}}
10 tree W7
11 exit the script
12 mkdir -p W7/{W7-1/{1level3,2level3}/W7-2/{3level3,4level3}}
13 tree W7
14 whoami
15 usermode -l manish kali
16 mkdir -p W7/{W7-1/{1level3,2level3},W7-2/{3level3,4level3}}
17 tree W7
18 cd W7/W7-1/1level3/
19 cd ../W7-1/2level3/
20 cd ../W7-1/2level3
21 cd ../W7-1/2level3
22 cd ../W7-1/2level3/
23 cd ../W7
24 cd ../W7-1/2level3/
25 cd ../W7-1/2level3/
26 mkdir -p W7/{W7-1/{1level3,2level3}/W7-2/{3level3,4level3}}
27 tree W7
28 exit
29 mkdir -p W7/{W7-1/{1level3,2level3},W7-2/{3level3,4level3}}
30 tree W7
31 cd W7/W7-1/1level3/
32 cd ../W7-1/2level3/
33 cd ../W7-2/4level3/
34 cd ../W7
35 cd ../W7
36 cd ../W7
37 cd ../W7
38 cd ../W7/
39 cd ../W7/
40 cd ..
41 ..
42 ls
43 cd ../W7-1/2level3
44 cd ../W7-1/2level3/
```

Question.11

Re-executing the *last but one* command using the **redo (r)** command and the number of the event.

fc -r

```
(kali㉿kali)-[~]
$ bash
(kali㉿kali)-[~]
$ help fc
fc: fc [-e ename] [-lnr] [first] [last] or fc -s [pat=rep] [command]
    Display or execute commands from the history list.

fc is used to list or edit and re-execute commands from the history list.
FIRST and LAST can be numbers specifying the range, or FIRST can be a
string, which means the most recent command beginning with that
string.

Options:
  -e ENAME  select which editor to use.  Default is FCEDIT, then EDITOR,
             then vi
  -l        list lines instead of editing
  -n        omit line numbers when listing
  -r        reverse the order of the lines (newest listed first)

With the `fc -s [pat=rep ...] [command]' format, COMMAND is
re-executed after the substitution OLD=NEW is performed.

A useful alias to use with this is r='fc -s', so that typing `r cc'
runs the last command beginning with `cc' and typing `r' re-executes
the last command.

Exit Status:
Returns success or status of executed command; non-zero if an error occurs.

(kali㉿kali)-[~]
$ history
1  help fc
```

Question.12

Re-executing the command given *three commands ago* using the negative integer.

!-3. This will run the first command, -2 will run the second command and -1 will run the last command. It is the way to run our path command quickly.

```
(kali㉿kali)-[~]
$ echo "A"
A
(kali㉿kali)-[~]
$ echo "B"
B
(kali㉿kali)-[~]
$ echo "C"
C
(kali㉿kali)-[~]
$ !-3
A
(kali㉿kali)-[~]
$ echo "A"
```

Question.13

Re-execute the last command which name begins with 'l'

Run the recent command which name begins with "l"

```
(kali㉿kali)-[~]  
$ fc -s l  
ls  
Desktop Documents Downloads Music Pictures Public Templates Videos
```