



**Module Code & Module Title**

**Level 5 – Operating Systems**

**Assessment Type**

**Logbook 8**

**Semester**

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*I confirm that I understand my coursework needs to be submitted online via MST Classroom under the relevant module page before the deadline in order for my 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*

## Week 8 Workshop Tasks

Write your tasks and your observations in your logbooks.

1) Create the directory structure presented in the figure below.

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

2) Change to the 8cat-grep directory by one step using a relative pathname.

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

3) Using the cat utility, create two files

File testa File testb

Kkklll KKKKKK

lllmm LLLLLL

oo--oo MMMMMM

mmmdd DDDDD

dddkk

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

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

4) Give the following commands and explain the results for yourself

• grep ll testa

```
(kali㉿kali)-[~/W8/8cat-grep]  
$ grep ll testa  
Kkklll  
lllmm
```

- **grep -v ll testa**

```
(kali㉿kali)-[~/W8/8cat-grep] .stalled.  
$ grep -v ll testa 0 newly installed, 0 to remove and 0 not upgraded.  
00-00 class: Is a directory  
mmdd Desktop: Is a directory  
dddkk Documents: Is a directory  
grep: Downloads: Is a directory
```

- **grep -n ll testa**

```
(kali㉿kali)-[~/W8/8cat-grep]  
$ grep -n ll testa a directory  
1:Kkkll laptop: Is a directory  
2:llmm music: Is a directory  
grep: Nepal: Is a directory
```

- **grep -l ll \***

```
grep: Nepal: Is a directory  
(kali㉿kali)-[~/W8/8cat-grep]  
$ grep -l ll *Is a directory  
testa Public: Is a directory  
grep: Templates: Is a directory
```

- **grep -i ll \***

```
(kali㉿kali)-[~/W8/8cat-grep]  
$ grep -i ll *a directory  
testa:Kkkll a directory  
testa:llmm a directory  
testab:LLLLL a directory
```

- **grep -i LL \***

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

- **grep -c ll \***

```
grep: Templates: Is a directory  
(kali㉿kali)-[~/W8/8cat-grep]  
$ grep -c ll *a directory  
testa:2 Is a directory  
testab:0 Is a directory  
grep: testb: Is a directory
```

- **grep '^K' testa testb**

```
(kali㉿kali)-[~/W8/8cat-grep]  
$ grep '^K' testa testb  
testa:Kkkll  
grep: testb: No such file or directory
```

- **grep -n '^' testa**

```

(kali㉿kali)-[~/W8/8cat-grep]
$ grep -n '^' testa
1:Kkklll grep -n '^' testa testb
2:lllmm grep -n '^' testa
3:oo-oo alias lsal='ls -al'
4:mmmdd lsal
5:dddkk alias lsal
  
```

## 6) Define the lsal alias for ls -al command

Show that your system stores it giving the alias command (without arguments).

Use it in your home directory.

```

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

```

(kali㉿kali)-[~/W8/8cat-grep]
$ alias
diff='diff --color=auto'
egrep='egrep --color=auto'
fgrep='fgrep --color=auto'
grep='grep --color=auto'
history='history 0'
ip='ip --color=auto'
l='ls -CF'
la='ls -A'
ll='ls -l'
ls='ls --color=auto'
lsal='ls -al'
which-command=whence
  
```

## 7) Remove the alias.

Show that your system does not store it.

```

(kali㉿kali)-[~/W8/8cat-grep]
$ unalias lsal
lsal: is a directory
  
```

## 8) Define this alias again preserving it for the next session

```

(kali㉿kali)-[~/W8/8cat-grep]
$ alias
diff='diff --color=auto'
egrep='egrep --color=auto'
fgrep='fgrep --color=auto'
grep='grep --color=auto'
history='history 0'
ip='ip --color=auto'
l='ls -CF'
la='ls -A'
ll='ls -l'
ls='ls --color=auto'
lsal='ls -al'
which-command=whence
  
```

Show that the system still keep this your alias.

9) Define the nwho alias for the number of system file at UNIX computers.

alias nwho='getent passwd|wc -l'

```
(kali㉿kali)-[~/W8/8cat-grep]
$ alias nwho='cat /etc/passwd | wc -l'
```

10) Give the command nwho. Compare the figure displayed with ones got by your UNIX-mates.

```
(kali㉿kali)-[~/W8/8cat-grep]
$ nwho
56
```

11) List your last commands executed giving the history command.

```
(kali㉿kali)-[~/W8/8cat-grep]
$ history
1 id *
2 whoami
3 ls
4 cd /slington
5 whois tryhackme.com
6 nslookup
7 alias lsal='ls -l'
8 alias lsal='ls -al'
9 source ~/.bashrc
10 mkdir -p parent/child/8cat-grep/
11 cd parent/child/8cat-grep/
12 cat > testa << EOF\nkkll\nlllm\noo-oo\nmmdd\ndddkk\nEOF\ncat > testb << EOF\nKKKKK\nLLLLL\nMMMMM\nDDDDD\nEOF\n
13 grep
14 mkdir -p parent/child/8cat-grep
15 ls -R parent
16 mkdir -p w8/8cat-grep
17 cd w8/8cat-grep
18 cat>testa
19 cat>testb
20 grep ll testa
21 grep -v ll testa
22 grep -n ll testa
23 grep -l ll *
24 grep -i ll *
25 grep -I ll *
26 grep -c ll *
27 grep '^K' testa testb
28 grep -n '^' testa
29 alias lsal='ls -al'
30 lsal
31 unalias lsal
32 alias
33 echo "alias lsal='ls -al'" >> ~/.bashrc
34 source ~/.bashrc
35 mkdir -p w8/8cat-grep
36 cd w8/8cat-grep
37 cat>testa
38 cat>testb
39 grep ll testa
40 grep -v ll testa
41 grep -n ll testa
42 grep -l ll *
43 grep -i ll *
44 grep -I ll *
45 grep -c ll *
46 grep '^K' testa testb
47 grep -n '^' testa
48 alias lsal='ls -al'
```

```
46 grep '^K' testa testb
47 grep -n '^' testa
48 alias lsal='ls -al'
49 alias
50 unalias lsal
51 lsal
52 alias
53 alias nwho='cat /etc/passwd | wc -l'
54 nwho
```

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

```
(kali㉿kali)-[~/W8/8cat-grep]
$ fc -r
alias nwho='cat /etc/passwd | wc -l'
```

**!-3**

```

grep: evanl: Is a directory
(kali㉿kali)-[~/W8/8cat-grep]
$ !-3
laptop: Is a directory
grep: Must not Is a directory

```

**fc -e- l**

```

kali@kali: ~
File Actions Edit View Help
kali@kali: ~$ cd /tmp/$cat-grep
kali@kali: ~$ ls
ls
Command 'ks' not found, but can be installed with:
sudo apt install cdl
Do you want to install it? (N/y)C
kali@kali: ~$ cd
kali@kali: ~$ cd
kali@kali: ~$ alscript class Desktop Documents Downloads evani foldername Laptop Music Nepal parent Pictures Public Templates test test1 test2 test3 Videos W7 W8 zphisher
kali@kali: ~$ tree
tree
alscript
class
Desktop
Documents
Downloads
evani
foldername
Laptop
├── kali
├── file2
└── W7
Music
Nepal
├── Bagmati
├── Itan
├── Kaskasua
├── Gandaki
├── Gurkha
└── Kaski
Parent
├── child3
├── $cat-grep
├── testa
└── testb
Pictures
Public
Templates
test
├── W7
└── W8

```

```

kali@kali: ~
File Actions Edit View Help
~
$ ls
alscript class Desktop Documents Downloads evani foldername Laptop Music Nepal parent Pictures Public Templates Test Test1 test2 Test3 Videos W7 W8 zphish
kali@kali:~$
.
├── alscript
├── class
├── Desktop
├── Documents
├── Downloads
├── evani
├── foldername
├── Laptop
├── Music
├── Nepal
├── parent
├── Pictures
├── Public
├── Templates
├── Test
├── Test1
├── test2
├── Test3
├── Videos
├── W7
├── W8
└── zphish

```

```
├── chroot
│   ├── rcat-grep
│   │   ├── testa
│   │   └── testb
├── Pictures
├── Public
├── Templates
├── test
│   ├── A
│   │   ├── B
│   │   │   ├── C
│   │   │   └── D
├── test1
├── test2
├── test3
├── Videos
├── W7
│   ├── w7-1
│   │   ├── 1level2
│   │   │   ├── example.txt
│   │   │   ├── file1
│   │   │   └── newfile
│   │   ├── 2level3
│   │   │   ├── example.txt
│   │   └── 3level3
│   │       └── file3.txt
├── W8
│   ├── rcat-grep
│   │   ├── testa
│   │   └── testab
├── zphisher
│   ├── auth
│   │   ├── ip.txt
│   │   └── usernames.dat
│   ├── Dockerfile
│   ├── LICENSE
│   ├── make-deb.sh
│   ├── README.md
│   ├── run-docker.sh
│   ├── scripts
│   │   └── launch.sh
│   └── zphisher.sh
60 directories, 23 files
(kali@kali)~$
$ fc -e -l
ls
alscript class Desktop Documents Downloads evani foldername Laptop Music Nepal parent Pictures Public Templates test test1 test2 test3 Videos W7 W8 zphisher
(kali@kali)~$
```